The Lettsomian Lectures
ON
THE OBJECTS AND LIMITS OF OPERATIONS FOR CANCER.

Delivered before the Medical Society of London

By W. WATSON CHEYNE, F.R.C.S. ENG., F.R.S.,
PROFESSOR OF SURGERY AT KING'S COLLEGE; SURGEON TO KING'S COLLEGE HOSPITAL, ETC.

LECTURE II.[1]

Delivered on Feb. 17th, 1896.

MR. PRESIDENT AND GENTLEMEN,—In this and part of the next lecture I propose to consider the question of cancer as it affects the mouth and throat, more especially the pharynx. Here, as in the case of the breast, there is no real alternative operative procedure to that of removal with the view of cure. Œsophagotomy, gastrostomy, or tracheotomy, although they may prolong the patient's life for a very short time, do not add materially to his comfort, and can in no way be looked on as alternatives to a radical operation, and in these cases, therefore, as in the breast, I do not think than we can do very much in the way of selection of cases for operation.

As compared with cancer of the breast the disease in the throat is in some ways more favourable for cure, in other ways less so. As regards the primary diseases the breast cancer is by far the most favourable of the two, for there it is fully exposed to view, and there is plenty of room for its free removal without endangering important structures. In the mouth and throat, on the other hand, the disease is close to if not involving many important parts, the space in which one has to work is very limited, one cannot get much margin of healthy tissue around, and the early spread of the cancer to muscle, especially in the case of the tongue, tends to distribute it over a considerable area. In the throat, also, the disease is much less favourable for operation because the septic element comes into play, and thus, instead of having to do with an operation as in the breast where the mortality is practically *nil*, we have to face a very considerable risk of death from septic disease. On the other hand, cancer in the mouth and throat is more favourable as regards the glandular deposits, for in the neck we have an extensive glandular area exposed to view which can be much more thoroughly dealt with than in the case of the breast. It is true that many surgeons look on the glandular trouble as a most serious part of the disease, but for reasons which will be afterwards stated I do not agree with this. In one other respect, also, cancer in the mouth and throat is more favourable than that in the breast—viz., that metastatic deposits, which so often disappoint us in the latter case, are quite infrequent in the former. Cancer in the mouth and throat is most conveniently considered under three heads—viz.: (1) cancer of the tongue; (2) cancer of the pharynx, tonsil, soft palate, epiglottis, &c.; and (3) cancer of the larynx.

1. CANCER OF THE TONGUE.

So much has been written already on cancer of the tongue that I will not take up time in discussing it, more especially as I wish to go pretty fully into the question of cancer of the pharynx, a still more serious form of the disease, one about which less has been written, the operations for the relief of which are among the most formidable and difficult in surgery, and which has recently interested me very much; I may, however, be asked whether I adhere, in the case of the tongue, to the principles of treatment laid down with regard to the breast, more especially with regard to two points. Firstly, as cancer of the tongue very soon spreads into the muscular substance, must Heidenhain's law be followed, viz., the removal of the whole muscle; and, secondly, should the nearest lymphatic glands be taken away in every case? The answer is practically "Yes" to both questions. If we want justification for thorough operations in the case of cancer of the tongue, it is to be found in the great frequency of recurrence after operation, varying from 61 per cent. in Kocher's statistics up to 89 per cent. in Winiwarter's. It is difficult to estimate the relative frequency of local and glandular recurrence and they most usually occur together, but on the whole local recurrences seem to be quite as frequent as glandular recurrences alone. The question of how much of the tongue should be removed, and more especially whether the genio-hyo-glossus should be followed quite down to the hyoid bone, depends very much on the situation of the disease. Cancer of the tongue, as it comes under the notice of the operating surgeon, presents itself under two chief forms—viz., either as a more or less superficial warty growth, especially along the sides of the tongue, or as a deep ulceration extending well into the substance of the organ. In the former case the deeper muscles of the tongue are not yet affected, in the latter they are, and corresponding to this we find a difference in the results of operation. Taking one of the most recent statistics of tongue cancer—viz., Kocher's results as published by Willy Sachs[2]—we find that in 19 cases the cancer was more or less superficial, and that of these 3 were cured by operation (taking the three-year limit), or 15 per cent., 4 had remained well for one year or more, 2 died, and of the remainder 5, or 27 per cent., certainly recurred, and the ultimate result of the others is not known; while there were 27 cases where the cancer had penetrated into the deeper substance of the tongue, of which only 2, or 7 per cent., were cured, 4 died, and the remainder either recurred or there is no note of them after operation; certainly 11, or 40 per cent., are known to have recurred. In the superficial form the tongue is not saturated with the cancer cells to anything like the extent that occurs where the disease has extended deeply into the muscle, and accordingly we have the more favourable results just alluded to, and the operation need not be so severe. Thus, in the superficial and laterally placed tumours removal of half the tongue is in all probability sufficient, and where the tumour does not extend deeply into the substance of the muscle the muscular fibres need not be followed down to the hyoid bone; on the other hand, where we have to do with a cancer which has penetrated into the substance of the tongue we must look on the whole of the tongue muscles, at any rate on that side, as infected, and whether we content ourselves with removal of the affected half or not we must follow the muscular fibres right down to their attachment to the hyoid bone. A second point to be noted in connexion with operation for cancer of the tongue is the distribution of the lymphatic vessels. Where the cancer affects the base of the tongue we have to do with a large lymphatic plexus which is not unilateral, and under these circumstances we often find enlarged glands on both sides of the neck. This plexus runs into glands in the anterior triangle about the angle of the jaw, and the lymphatic vessels seem to be specially connected with, or related to, the posterior belly of the digastric muscle. On the other hand, many of the lymphatic vessels at the anterior part of the tongue and the floor of the mouth run towards the submaxillary region, and it is there, and subsequently about the cornu of the hyoid bone, that the first enlargement of lymphatic glands is usually evident. Where the disease is superficial and affects the front part of the tongue the glands are not so early affected and it is not so necessary to remove the glandular area in the first instance, but I think it is always well to take away the submaxillary and sublingual glands on the affected side along with the lymphatic glands so closely associated with them, and therefore I always tie the lingual artery in the neck and clear out these glands with the fat in the neighbourhood, even although no glands can be felt, and then clip out the tongue from the mouth. In this case the wound in the neck does not communicate with the mouth and remains aseptic, and does not, therefore, add anything to the danger of the operation. Where, however, the cancer extends deeply into the substance of the tongue, and more especially where it is situated at the back part, some more severe procedure, such as Kocher's operation, with thorough removal of the glandular area and of the muscle down to the hyoid bone, becomes requisite. The mortality in the latter case is naturally greater, but has been much reduced of late years in accordance with improved methods of treating the wounds. Kocher's results show this very markedly, for while prior to 1882 he had 5 deaths in 29 cases, or 17·2 per cent., between 1882 and 1888, when he improved his methods, he had 1 death in 28 cases, or a mortality of 3·5 per cent. So also Winiwarter, publishing in

[1] Lecture I., delivered on Feb. 3rd, 1896, was published in THE LANCET of Feb. 15th. Lecture III. will be delivered on March 2nd.

[2] Langenbeck's Archiv, vol. xlv.

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A second point to be noted in connexion with operation for cancer of the tongue is the distribution of the lymphatic vessels. Where the cancer affects the base of the tongue we have to do with a large lymphatic plexus which is not unilateral, and under these circumstances we often find enlarged glands on both sides of the neck. This plexus runs into glands in the anterior triangle about the angle of the jaw, and the lymphatic vessels seem to be specially connected with, or related to, the posterior belly of the digastric muscle. On the other hand, many of the lymphatic vessels at the anterior part of the tongue and the floor of the mouth run towards the submaxillary region, and it is there, and subsequently about the cornu of the hyoid bone, that the first enlargement of lymphatic glands is usually evident. Where the disease is superficial and affects the front part of the tongue the glands are not so early affected and it is not so necessary to remove the glandular area in the first instance, but I think it is always well to take away the submaxillary and sublingual glands on the affected side along with the lymphatic glands so closely associated with them, and therefore I always tie the lingual artery in the neck and clear out these glands with the fat in the neighbourhood, even although no glands can be felt, and then clip out the tongue from the mouth. In this case the wound in the neck does not communicate with the mouth and remains aseptic, and does not, therefore, add anything to the danger of the operation. Where, however, the cancer extends deeply into the substance of the tongue, and more especially where it is situated at the back part, some more severe procedure, such as Kocher's operation, with thorough removal of the glandular area and of the muscle down to the hyoid bone, becomes requisite. The mortality in the latter case is naturally greater, but has been much reduced of late years in accordance with improved methods of treating the wounds. Kocher's results show this very markedly, for while prior to 1882 he had 5 deaths in 29 cases, or 17·2 per cent., between 1882 and 1888, when he improved his methods, he had 1 death in 28 cases, or a mortality of 3·5 per cent. So also Winiwarter, publishing in

[1] Lecture I., delivered on Feb. 3rd, 1896, was published in THE LANCET of Feb. 15th. Lecture III. will be delivered on March 2nd.

[2] Langenbeck's Archiv, vol. xlv.

1878, gives a mortality of 42 per cent., while Volkmann had only 2 deaths in 91 cases, or a mortality of 2·2 per cent., Winiwarter's large mortality being essentially due to sepsis, septic pneumonia, &c. Taking mild and severe cases together and the statistics of a large number of surgeons the mortality may be estimated at from 15 to 20 per cent. As regards cures, they are not, of course, nearly so frequent as in the breast, but this is to a great extent due, I think, to not taking away enough of the tongue muscles in deep-seated cases and more especially to not clearing out the glandular area properly. And, further, some surgeons are very apt to look on glandular enlargements, unless very small, as inoperable, and thus abandon patients to their fate who might, I think, still have had a fair chance by operation. Winiwarter gives 2·3 per cent. of cures and 42 per cent. mortality; König 12 per cent. cures and 28 per cent. mortality; Kocher (leaving out the last three years) 18 per cent. cures and 11 per cent. mortality. With regard to Kocher's cures, 8 in number (one after operation for recurrence), it must be noted that in two of them cancer again appeared in the mouth ten and twelve years respectively after the operation; while one died seven years later from cancer of the stomach. The first two cases must, however, I think, be looked on rather as fresh disease than as recurrence of the former. I feel sure that when the recent work on cancer is more thoroughly applied to the tongue, more especially as regards the removal of the glands, we may look for further improvement in the results. I must not, however, take up more time in considering disease of the tongue; what I have to say about the removal of the glands and the after treatment in connexion with pharyngeal disease applies equally to cancer of the tongue, and therefore I shall leave these points till I come to speak of cancer of the pharynx. The limits of the operation for cure in cases of disease of the tongue are, in my opinion, the following: very extensive infiltration of the tongue muscles, especially downwards towards the hyoid bone; extensive affection of the jaw in addition to the tongue; extension to the upper part of the larynx; and involvement of the carotid artery and vagus nerve in the large glandular mass. In these cases I doubt if we can do very much in the way of operation which can be beneficial to the patient. In cases where the glandular enlargement is marked some surgeons advise the removal of the tongue with the view of taking away the disease in the mouth, which is the most distressing thing to the patient, but an essential for such a procedure is that there should be a good probability of subsequent non-recurrence in the mouth, and for my own part I think that in most cases where the disease in the mouth is of such small extent as to render it probable that it will not recur locally after operation, the glandular disease can also be taken away and a cure aimed at. In cases where the glandular enlargement is really inoperable the removal of the tongue, if local recurrence did not take place, would no doubt be of advantage to the patient, but failing that we must be content so far as operative measures are concerned with such substitutes as division of the gustatory nerve, tracheotomy, &c.

2. CANCER OF THE PHARYNX.

Cancer may begin anywhere in the pharynx, but most commonly (apparently in over 60 per cent. of the cases) it commences in the mucous membrane over the tonsils or pillars of the fauces, and spreads thence over the neighbouring parts. From the tonsil the disease spreads most often and earliest on to the pillars of the fauces and upwards to the soft palate, next most frequently downwards on to the base of the tongue, and, lastly, backwards over the pharynx; indeed, in most cases which come under view, one usually finds most or all of these parts affected, even on the first occasion when one sees the patient. Epithelioma, also, sometimes, though not nearly so commonly, begins about the epiglottis and orifice of the larynx, and the third point of selection is lower down, close to or at the commencement of the œsophagus. It is remarkable how little trouble the disease causes at an early period; sometimes, as in the ninth case (No. 39, Table 3[a]), the patient does not observe anything wrong till the occurrence of bleeding attracts his attention. In other instances, as in Case 4 (No. 127), he first notices a frequent desire to clear his throat, or, again (Case 6, No. 26), a feeling of uneasiness and dryness about the throat, and very commonly pain shooting up to the ear. Indeed, in not a few instances the first thing which leads him to call in a surgeon is the enlargement of the cervical glands in the neighbourhood of the angle of the jaw. Consequently, as epitheliomata in this region apparently grow very readily and rapidly, it is but seldom that the patient seeks advice before the disease has spread to an alarming extent, and when he does apply the case is generally regarded as hopeless, and he is condemned to palliative treatment. Nevertheless, as will be evident from the list of cases I have put together, a considerable number of operations have been performed for cancer in this region, the success, however, naturally being limited owing to the desperate nature of the case and the peculiar position of the disease, to some extent to the removal having been imperfectly carried out, and also to the limited experience of the individual operator, owing to the rarity of the disease. In considering the question of cancer of the pharynx it is most convenient to divide this part into several regions, for the method of operation and the result of treatment vary very much according to the part affected. Thus we may speak of (1) cancer in the naso-pharynx; (2) cancer affecting the soft or hard palate alone; (3) cancer affecting the tonsillar region and spreading thence to the neighbouring parts; (4) cancer affecting the pharynx proper; and (5) cancer affecting the pharynx and larynx. Of these I have omitted entirely cancer of the soft or hard palate alone, because these cases are comparatively limited and readily dealt with from the interior of the mouth, and also because many of the palate tumours described as alveolar sarcomata and adenoid carcinomata are in reality quite simple growths and have no tendency to recur after removal. Nor have I gone into the results with regard to cancer of the naso-pharynx, but I nevertheless mention three cases in which I have operated in this situation, more, however, with a view of putting them on record than for the purpose of discussing this part of the subject. Further, I have in my list included sarcomata as well as carcinomata, and I have done so on account of the great interest of the operative procedures, and the fact that apart from the likelihood of recurrence the question whether we have been dealing with a sarcoma or a carcinoma does not materially influence the methods of operation, the functional result, or the result as regards life. I think I can best give a view of the whole matter if I devote the rest of to-day's lecture to a description of the cases in which I have myself operated, and subsequently refer to the tables which have been placed in your hands giving the operative results which have been attained in this disease. In the first place I shall describe three cases of disease in the naso-pharynx.

CASE 1. *Lympho-sarcoma of the left side of the naso-pharynx involving the Eustachian tube and growing from the base of the skull.*—The patient was a male aged forty-six years, and was first seen by me on March 9th, 1892. The patient consulted Dr. Urban Pritchard about a year previously on account of buzzing in the left ear. At that time there was no suspicion of new growth. About six months afterwards he noticed that he was becoming deaf on the left side, and for the last three months he had observed that there was some obstruction of the left nostril. He, therefore, saw Dr. Pritchard for the second time at the end of February, 1892, and on examination a growth was found on the left side of the naso-pharynx, blocking and apparently involving the Eustachian tube. Dr. Pritchard had a consultation with Dr. Greville Macdonald, and as a result the situation and extent of the growth were described to me and the problem was put whether any operative interference was possible in the case of a malignant tumour in this region. The patient was particularly desirous, in connexion with his private affairs, that if possible some extension of life might be obtained for him. I took the matter into consideration and decided that an operation was possible, and accordingly I saw the patient on March 9th, 1892, and found the following state of matters. The patient was in good general health and had not been losing flesh or strength lately. The various organs of the body appeared to be healthy. The hearing on the right side was normal, on the left side a watch was only heard when applied to the ear; breathing through the left nostril was almost completely obstructed. On looking into the mouth nothing could be seen beyond fulness of the soft palate on the left side. With the rhinoscope a prominent tumour was evident, projecting on the left side of the naso-pharynx, reaching inwards as far as the septum, downwards to and involving the soft palate, backwards to the back of the pharynx, and upwards to the base of the skull. The Eustachian tube was apparently involved in the growth, and in our opinion it had started from that part. The tumour was slightly ulcerated at the upper part, but there had been no bleeding or pain. With the finger the outlines of the tumour could be readily made out. It did not seem to extend into the nasal cavity, but it pushed down the soft palate and extended into it. A mass of enlarged glands was felt at the upper part of the left anterior triangle and extending under the sterno-mastoid muscle. This mass was not at all freely movable. I explained to the patient the extent and seriousness of the operation and the great probability of recurrence, but as it was of great importance to his family that he should live as long as possible he decided in favour of the operation. On March 13th, 1892, I performed the following operation, assisted by Messrs. Stanley Boyd and Burghard. Just at the time that this case occurred Dr. Wright had published some papers on the value of chloride of calcium in increasing the coagulability of the blood and also of fibrin ferment as a styptic, and I therefore asked him to be present and to superintend the use of these substances, for I anticipated that there would be a good deal of bleeding. Accordingly an hour before the operation a pint of water containing half an ounce of chloride of

[a] Table III., occasionally alluded to, follows in next lecture.

calcium was injected into the rectum, and during the operation pledgets of salicylic wool soaked in Wright's fibrin ferment solution were applied to the freshly cut surfaces. Whether as the result of this treatment or not, the fact is that extremely little blood was lost, I do not think more than an ounce or an ounce and a half in all. By means of an oblique incision carried along the anterior part of the sterno-mastoid muscle a mass of glands was removed from the neck. They were deeply seated, being attached to the fascia over the atlas, the spinal accessory nerve running in front of them. In addition, the fat and tissues in the vicinity were, of course, also taken away. After their removal the tumour could be felt from the wound, and as it was ascertained that the vessels were in no way involved in it the further operation was proceeded with. The next step was the performance of tracheotomy and the insertion of a Hahn's tube. I then proceeded to remove the upper jaw on the left side, the usual skin incisions being made. The periosteum and mucous membrane of the hard palate were, however, detached from the bone and left behind, and the orbital plate of the superior maxilla was also left. After the removal of the upper jaw the base of the pterygoid process was divided with bone forceps and the process removed; the front of the tumour could then be seen. The next step was to detach the tumour from the external pterygoid muscle, the other tissues outside it, and the soft palate. It was then found to have originated from the periosteum of the base of the skull and to have grown downwards along the side of the pharynx, involving the Eustachian tube in its course. A portion of the Eustachian tube was removed and the mucous membrane all around the tumour was divided. The periosteum over the whole roof of the naso-pharynx was then carefully detached as far out as the foramina for the vessels, and as far forward as the disease seemed to extend. A layer of the surface of the bone was then chipped off and the whole bare surface cauterised with Paquelin's cautery; the hard palate was then stitched to the cheek and the wound was closed with sutures. As has already been said, very little blood was lost, and, as a matter of fact, the preliminary tracheotomy proved to have been quite unnecessary. The operation lasted about two hours. There was remarkably little shock after the operation and by the evening it had quite passed off. There is very little to say about the further progress of the case. The temperature only once reached 100° F., and that was on the morning after the operation, and the further progress towards recovery was uninterrupted. It was very extraordinary what an entire absence there was of septic absorption. The tracheotomy tube was left out on the day after the operation, all the stitches were removed on the fifth day, the patient got up on the tenth day, and left town on the twenty-third day. Very shortly afterwards he was able to resume business, and for about fifteen months there was no sign of recurrence in the nose, although in March, 1893, that is to say, a year after the first operation, I removed some small glands from the left posterior triangle of the neck. In July, 1893, however, he began to have some bleeding from his nose, and accordingly I reopened the scar and found that recurrence had taken place at the roof of the nasal cavity in front of the former seat of the disease, the situation of the original tumour, however, remaining perfectly well. I cleared this part as thoroughly as possible, and for a time he went on very well; but in the spring of 1894, about two years after the first operation, he began to go down-hill, bleeding occurring again from the nose, and glands enlarging on the other side of the neck. He gradually became worse, and ultimately died on Dec. 14th, 1894, two and three-quarter years after the first operation, having had time to put his affairs in good order and to provide for his family.

Quite recently I have had another somewhat similar case, which I may introduce here.

CASE 2. *Lympho-sarcoma growing from the base of the skull and projecting into the naso-pharyngeal cavity.*—A female aged twenty-four years was admitted to King's College Hospital on Dec. 2nd, 1895. The patient had noticed stuffiness in her right nostril as long ago as last August, but thought it was a cold and paid no attention to it. It, however, gradually became worse in a few days when she consulted Dr. W. H. Dobie of Chester, who diagnosed the condition of matters and sent her up to me. The patient is a young woman in good health, who has not been wasting, and only complains of this feeling of stuffiness in the nostril. Nothing is seen by inspection of the mouth, but with the finger a hard mass is felt through the soft palate, especially on the right side. On examination with the rhinoscope a rounded swelling is seen growing from the roof of the naso-pharynx and filling up most of the space, no ulceration over it, and it is not pedunculated. With the finger passed up behind the soft palate a firm tumour is felt which apparently does not extend into the nasal cavity and is nearly centrally situated; no enlarged glands in the neck. On Dec. 22nd, 1895, the patient was anæsthetised with chloroform and the soft palate was split in the middle line, the incision being carried through the mucous membrane and periosteum of the hard palate nearly to the front. The periosteum of the hard palate was then peeled off the posterior part, and by means of a chisel and hammer a curved portion of the back part of the bone of the hard palate, as well as the posterior part of the vomer, was chipped away. The soft parts being held aside by a string passed through each flap, a very fair view of the tumour was obtained, the head hanging down. An incision was then made through the mucous membrane and periosteum over the base of the skull all round the growth and as far from it as possible, and then the periosteum and the tumour over it were detached. After detaching the periosteum and after bleeding had been arrested by pressure, the whole raw surface was thoroughly painted over repeatedly with nitric acid, and after the acid had acted for some time a solution of carbonate of soda was applied to the part. The soft and hard palate were then united with stitches, no dressing of any kind being applied to the wound. The recovery was uninterrupted. The palate united perfectly, and when the patient was sent home on Jan. 10th the raw surface was granulating nicely and seemed perfectly healthy. From the second day after the operation the patient was kept in a sitting position. In this case it will be seen that a totally different method of procedure was adopted from that which was employed in the former case. In the former case, however, the tumour was unilateral, and as far as one could judge extended well into the side of the neck, and it did not seem at all possible to get satisfactory access to it from below; in the latter case it was centrally situated, and it seemed to me that the method employed would be sufficient. I must say, however, that of the two plans I believe the former—namely, the excision of the upper jaw, or, at any rate, a temporary resection of it, and removal of the pterygoid process—is much the more satisfactory. In the first case I could see exactly what I was doing, and had no difficulty in obtaining complete access to the whole affected area; in the latter case it was difficult to be quite certain whether I had got well beyond the growth at the anterior part, and though this last plan may be useful in cases where the tumour is quite small and centrally placed I should be inclined in most cases to employ the former method. The remarkable absence of any septic phenomena in both these cases is very striking, and I attribute it mainly to the free escape of the discharge from the surface of the wound as the result of the position of the patient, and also to scrupulous care in cleansing the mouth and in avoiding the introduction of any septic infection from without. Both cases show that tracheotomy is quite unnecessary in these operations.

The following case may also be added to this group, although the disease extended further forwards.

CASE 3. *Spindle-celled sarcoma growing from the roof of the nasal cavity, involving the sphenoidal, ethmoidal, and frontal sinuses and destroying the upper part of the nasal septum.*—The patient was a female about forty years of age sent to me by Dr. Edward Law and seen on Feb. 14th, 1894. There was a history that the patient had suffered from nasal polypi for ten years, these polypi being, however, not the ordinary mucous polypi, but evidently of a more or less malignant character. She had been operated on many times and in many ways. Recently she had been under the care of Professor Volkmann, who had attempted to destroy the growth with the thermo-cautery and as a result the orifice of the nostril had been much burned and had become so contracted that it was impossible to see into it. The right nostril was completely filled up with growth which distended the nose and destroyed the nasal bones, and at the bridge of the nose a soft tumour was felt and seen projecting forwards; the frontal eminence was much more marked on the right side than on the left. The eye was pushed towards the right side and also projected forward. There was no swelling of the superior axilla, but electric illumination of the mouth showed a greater area of opacity on the right side than on the left. By posterior rhinoscopy a globular mass with a smooth surface and of a mucous appearance was seen projecting into the naso-pharynx and pressing on the right Eustachian tube. The nasal septum was pushed towards the left and almost blocked the left nostril. The patient was a public singer, and, curiously enough, her singing voice was unaffected. On March 7th, 1894, I performed the following operation. An incision was made along the right side of the nose, from the frontal bone downwards to the back part of the orifice of the nostril, and the ala and right side of the nose were detached and turned over to the left side, the skin being carefully separated from the tumour in front. The tumour was partly cystic and was gradually separated from its attachments along with as much healthy tissue as possible. It filled and distended the right frontal sinus and projected somewhat into the left, but it came completely away along with the mucous membrane. It opened and projected into the right orbital cavity, and it grew from the whole of the roof of the nasal cavity, especially on the right side, and had destroyed the vomer at the upper part. Great care was taken to remove all the periosteum and the walls of the various cells as far as was consistent with safety. The surface of the bones was then cauterised and sponged with undiluted carbolic acid; the skin was replaced in position and stitched, and a plug was introduced into the right nostril so as to keep it open during the healing process. The right antrum was also full of pus, and it was opened in the usual manner through the alveolus and a drainage-tube inserted into it. Here, again, the subsequent progress of the case was absolutely free from any fever or other cause of anxiety. The temperature did not rise above 100° F., and she left the home within three weeks apparently well. She remained well up till a year ago, since which time I have not seen or heard of her. At that time she was hoping to get an engagement in an opera abroad and probably was successful. The tumour was a spindle-celled sarcoma.

I have put these three cases together on account of their great interest, but I have not made any attempt at collecting the cases of operation for malignant tumours in the naso-pharynx, and therefore I shall not dwell on them. I have already mentioned the two modes in which access was gained to the tumours in the first two instances and the remarkable freedom from sepsis in the after progress of all the cases. How far the operation in these cases is worth while is a matter which is difficult to determine. I believe that in a carcinomatous affection of these parts it would certainly—unless the disease were very extensive—be well worth while, but lympho-sarcoma is, of course, notably a very disheartening disease to operate on. Nevertheless, in the first case to which I have referred the result, although not a cure, was such as to place the patient in a very much better position than if the operation had not been done; and he himself was more than satisfied that the operation he had gone through was well worth the result obtained.

In the following cases we have to do with tumours lower down, in the pharynx proper or in the neighbouring parts; firstly, a case affecting both larynx and pharynx, then three successful cases, then three fatal ones, and, lastly, one where local recurrence took place.

CASE 4. (*No. 127, Table III*). *Epithelioma of the right side of the pharynx, the epiglottis, right aryteno-epiglottidean fold, the pharyngeal mass being also adherent to the thyroid cartilage.*—The patient was a male aged forty-two years under the care of Dr. Roxburgh of Weston-super-Mare. About the end of June, 1892, the patient had a feeling of stiffness about the right side of the throat when he yawned, but he did not pay any particular attention to it, and otherwise he had no trouble or pain. He saw Dr. Roxburgh about it for the first time on July 24th, and he diagnosed a malignant ulcer of the pharynx. The patient came

up to town next day and saw a laryngologist, who confirmed the diagnosis and thought that the disease might be removed by operation. Two or three days later (on July 23th) he saw Dr. Greville Macdonald, who came to the same conclusion, and who arranged for me to go down and see the case, and if I approved to operate. I saw the patient on Aug. 1st, 1895, and operated the same day. On examination I found him in good general health and his various organs were healthy. Nothing was visible on inspection of the throat from the mouth, but with the laryngoscope a ragged ulcer somewhat larger than a shilling was seen on the right side of the pharynx, spreading on to the right aryteno-epiglottidean fold and possibly as far as the right side of the epiglottis. The vocal cords were normal. As far as any of us who had seen the case could judge the disease was quite limited. Until we came to the actual operation we had no idea that it had spread superficially in the mucous membrane to the extent which we found had taken place. The following were the steps of the operation: Preliminary tracheotomy performed and a Hahn's tube inserted. A long incision was then made parallel with the vessels and a transverse one along the border of the great cornu of the hyoid bone. The vessels were pulled outwards and the sub-maxillary gland was raised. It was found impossible to save the superior laryngeal nerve on that side. The pharynx was opened from the side and the disease exposed. It was found to be much more extensive than had been supposed because it spread superficially, and had not led to any marked thickening of the mucous membrane at the edge of the growth. It reached to the middle line behind, on to the tongue in front, and was adherent to the wing of the thyroid cartilage, but it was very difficult to define its extent on account of its superficial spread. The whole mass was removed—viz., the affected portion of the pharynx, the right aryteno-epiglottidean fold, a small part of the tongue, the greater part of the epiglottis, and a piece of the wing of the thyroid cartilage. The Hahn's tube was left in and a feeding-tube was introduced into the wound. The patient stood the operation well, the Hahn's tube was changed the next day for another, and as a section of the epithelioma was spreading superficially quite to the edge of the cut the small remaining piece was clipped out. For the next two days the patient went on very well, but on Aug. 4th signs of septic pneumonia appeared and he went very rapidly downhill and died on the following day.

CASE 5 (*No. 22, Table III.*). *Round-celled sarcoma of the right tonsil, side of pharynx, soft palate, and lower part of the naso-pharynx.*—The patient was a male aged forty-five years sent by Dr. Felix Semon and seen by me on June 13th, 1894. Six months previously an enlarged gland was removed by another surgeon from the right anterior triangle of the neck, and on microscopical examination was said to be of a simple character. At that time nothing was noticed in the throat. About four months before I saw him he began to suffer from uneasiness and pain in his throat, but he did not consult anyone till June 13th, when he saw Dr. Semon, who, thinking that it was a case which might be operated on, sent him on to me. On examination, the right tonsil was seen to be much enlarged, ulcerated, hard, and fixed. The disease extended to the wall of the pharynx and on to the right side of the soft palate, and appeared to be adherent to the external pterygoid process. From the history of its rapid growth for the history, as I understood it at the time, was but of a few weeks' duration) and its general characteristics, it seemed to me to be infiltrating the tissues around to a great extent, and I thought that there was no reasonable prospect of taking away all the disease, and, therefore, advised him not to have an operation done, and this advice agreed with that of the surgeon who had previously operated on him and who came to me with him. I did not see the patient again till Aug. 29th. I then found that the tumour had increased greatly in size and was now filling up the pharynx to a considerable extent, reaching well beyond the middle line. It interfered greatly with swallowing and to some extent with breathing. The tumour was still very hard and ulcerated, but it did not give me the same impression of wide infiltration which it did formerly. I therefore reconsidered the question of operation, and came to the conclusion that it might, after all, be possible to remove the tumour, and seeing that he had not many weeks to live I put the question of operation to the patient (who, by the way, was a medical man), and he decided in favour of it. There were one or two enlarged glands in the anterior triangle of the neck at the seat of the former operation. On Sept. 11th, 1894, I operated as follows. In the first instance an incision was made along the line of the vessels, the glands removed, and the external carotid artery tied; the cheek was then split from the angle of the mouth to the masseter muscle. An incision was now made through the mucous membrane in front of the growth, the lower part of the pterygoid process was removed with bone forceps, and the affected portion of the soft palate was clipped away with scissors. At this stage it was found that owing to the throat being filled up with the growth the patient could not breathe properly during the necessary manipulations, and therefore tracheotomy was performed and a Hahn's tube inserted. By means of a blunt instrument the tissues in front of the tumour were separated till the internal pterygoid muscle was exposed, and a layer of that muscle was removed with the tumour in front of it. It was then easy to define the upper, posterior, and lower borders of the growth, and the healthy tissue was clipped through well beyond it on all sides. The growth had become adherent to the Eustachian tube, and a small portion of that tube was therefore removed. Hardly any blood was lost. The wound in the cheek and the external wound, which I think did not communicate with the mouth though I am not quite sure, were stitched up, a drainage-tube being inserted in the latter. The patient had practically no shock after the operation, and during the course of the case there was an entire absence of all septic complications, the temperature not once going above 100° F. On the next day, however, the patient had intense pain in his liver, which alarmed me very much, but on inquiry I found that this was a condition to which he was subject, which he termed "Suakim liver," and from which he had suffered periodically since the Egyptian campaign. His treatment for this condition was absolute starvation, and for nearly a week he would not take anything by the mouth and subsisted on rectal enemata and nutrient suppositories. When this liver trouble had passed off he was able to swallow fairly well, and there has been no trouble in swallowing since. The tracheotomy tube was left out on the day after the operation. The patient left the home between three and four weeks after the operation, and is still alive and well and is present here to-night. The local result has so far been absolutely satisfactory; there has been no local recurrence whatever, and the functional result is perfect. There is no difficulty in speaking or swallowing. Although there has been no local recurrence I found in March of last year that several glands had become enlarged in the lower part of the anterior triangle and under the sterno-mastoid, and I therefore performed a somewhat elaborate operation with the view of clearing them out. Last summer, also, he came to me and pointed out a small gland in the posterior triangle which he thought was enlarging, and I therefore cleared out all the glandular tissue from the posterior triangle and root of the neck, but found none which showed evidence of disease.

CASE 6 (*No. 26, Table III.*). *Epithelioma of the left tonsil and soft palate, with a large mass of glands in the anterior triangle of the neck adherent to the vessels, extending under the sterno-mastoid muscle and up to the base of the skull.*—The patient, a male aged fifty-five years, was sent by Dr. Felix Semon and seen by me on Oct. 13th, 1894. The history was that the patient first began to feel uneasiness about the throat during the previous June, and at that time he was treated for gout. In July he first noticed a swelling on the left side of the neck, and since that time the throat trouble has steadily increased and the glands have gone on enlarging. In September he saw a well-known surgeon, who said that the disease was malignant, but that no operation was possible. Dr. Semon, whom he then consulted, having the experience of the preceding case before him, thought that something might be done and therefore asked me to see him. The patient's condition at that time was as follows. Towards the upper part of the left tonsil there was a patch of ulceration with a very hard base and edge and a warty surface, which spread on to the pillars of the fauces and involved a considerable portion of the soft palate. There was also a very large mass of glands in the left anterior triangle, extending from the mastoid process downwards to the level of the thyroid cartilage and passing under the sterno mastoid muscle. The mass was firmly adherent to the vessels. We came to the conclusion that an operation was feasible, and accordingly explained to the patient its nature and risks. He at once decided to have it done. The operation was performed on Oct. 15th, 1894, and I was assisted by Dr. Semon and Mr. Venning. In the first place a long incision was made along the anterior border of the sterno-mastoid from the mastoid process to about the middle of the thyroid cartilage, and, the deep fascia being divided at the lower part, the jugular vein was exposed. It was found that the glands were firmly adherent to the sheath of the vessels, and therefore the jugular vein was tied in two parts below the mass and divided between the ligatures. The vein and glands were then raised in one piece, the deep fascia being divided well to each side, and it was found that the spinal accessory nerve passed through the middle of the mass. It was not, however, actually involved in the disease, and by separating the glands the nerve was retained intact. The jugular vein was tied at its point of exit from the skull, and the mass of glands, with the vein and all the fat and glands under the sterno-mastoid and well into the posterior triangle on the one hand, and on the other right up to and behind the angle of the jaw was removed. The external carotid artery was next tied, and the posterior belly of the digastric and the stylo-hyoid muscles were divided so as to allow the jaw to come well forward; and then, the head being thrown back over the table, and the mouth held open with a gag, the soft palate was clipped through well beyond the disease, and the mucous membrane was incised all round the area of the growth at a certain distance from it. By means of the finger in the external wound the limits of the growth were defined and the whole diseased mass was clipped out. A large drainage-tube was inserted from the external wound and the skin incision closed at the upper part by sutures. The patient was a good deal collapsed after the operation, but recovered the same evening and went on remarkably well. As in the previous case there was no rise of temperature or septic complication. For three days he was fed by means of rectal enemata and suppositories, but on the fourth day he began to swallow a little, and succeeded fairly well by following a suggestion made by Dr. Semon, which was that he should lie flat in bed with his head turned to the right or sound side and hanging over the side of the bed. The food taken into the mouth in this way ran down the healthy side of the pharynx, and he was able to swallow a good deal. His power of swallowing very soon increased, more especially as the communication between the wound in the mouth and the exterior became shut off very rapidly. He got out of bed for the first time on the sixth day, and the drainage-tube was left out on the eleventh day. I had, however, to put the tube back again a couple of days later on account of accumulation in the wound, and this external sinus remained open for a few weeks, but closed before the end of the year without anything further being done for it. When I saw the patient last, in the middle of January of this year—that is to say, fifteen months after the operation—there was no evidence of recurrence and he was in the enjoyment of perfect health.

CASE 7 (*No. 112, Table III.*). *Epithelioma of the base of the tongue and the epiglottis; a few small glands in the neck.*—A man aged sixty years was brought to me by Dr. C. A. Parker on Nov. 20th, 1894. The history of the case was that for about six months the patient had noticed pain in swallowing, and lately had had neuralgic pains extending up to the ear. When we saw him together a small mass of enlarged glands was felt at the angle of the jaw on the left side and at the cornu of the hyoid bone, but on looking into the mouth nothing could be made out there without the aid of a mirror. On using the mirror, however, a superficially ulcerated surface was seen at the base of the tongue, especially on the left side, and extending into the hollow between the tongue and the epiglottis, partially filling it up. The epiglottis was also thickened and ulcerated on its anterior surface, but the larynx was free. On Nov. 28th, 1894, I performed the following operation:—I began by a preliminary tracheotomy and inserting a Hahn's tube. A long incision was then made along the line of the vessels and another nearly at right angles to it along the upper border of the hyoid bone. The glands were then removed, the external carotid artery tied, and the pharynx opened at the level of the cornu of the hyoid bone. In order to get a good view of and free access to the base of the tongue and the epiglottis it was necessary to clip away the cornu of the hyoid bone; but when this was done excellent access was obtained to the parts. The superior laryngeal nerve was not divided. The epiglottis was then detached from its attachment in the angle of the thyroid cartilage, but was left attached to the tongue. A transverse incision was then made completely across the tongue, well away from the disease, and the posterior part, together with the epiglottis, was taken away. Some bleeding vessels having been tied on the opposite side of the tongue the external wound was

stitched up, a drainage-tube being inserted at the lower angle. The only point of note in connexion with the after progress of the case was that the patient had an attack of bronchitis, to which he was very subject, and which began the day after the operation. For two or three days this gave rise to considerable anxiety, but it soon passed off, and otherwise his recovery was uninterrupted. He was fed for four days by rectal enemata and nutrient suppositories, and then he began to try to swallow some milk in addition. This he did not manage at all well, even with his head on one side, for about a fortnight, and then he gradually improved and was able in another week to take the necessary quantity of food entirely by the mouth. As regards the mouth and anterior triangle of the neck the patient still remains well, there has been no recurrence in either situation, the functional result is excellent, he is able to swallow without difficulty, and only extremely rarely does he have a fit of coughing while doing so, and he is in excellent health at the present time, fifteen months after the operation. In July of last year, however, I noticed an enlarged gland under the middle of the sterno-mastoid muscle on the left side, which increased in size somewhat rapidly. I cut down behind the sterno-mastoid and exposed the growth, and removed it along with a portion of the jugular vein, to which it was somewhat adherent, and with all the fat and glands that I could find in the neighbourhood and in the posterior triangle. While removing it it gave way at one part, and some fluid containing flakes of epithelium escaped into the wound. I washed the wound out with sublimate, and then sponged the whole surface of the wound thoroughly with undiluted carbolic acid. The wound healed by first intention except where the drainage-tube was, which I had put in on account of the application of carbolic acid; but this also healed in a very few days, the application of the acid not apparently interfering with the healing at all. For two days, however, he showed considerable signs of carbolic acid poisoning, curiously enough the first occasion on which I have seen evidence of carbolic acid poisoning after the application of undiluted carbolic acid to a raw surface. At the end of December of last year he showed me a small gland on the right side of the neck opposite the right cornu of the hyoid bone, which had increased somewhat in size of late. I, therefore, removed this gland along with the material in the neighbourhood, and found on microscopical examination that it also was epitheliomatous. The wound healed by first intention, and the patient remains without any further appearance of disease, now about fifteen months since the first operation. You may naturally inquire why I applied undiluted carbolic acid to the wound in the neck in the second operation. My action was founded on my experience in the following case. Some years ago I had removed the whole tongue for an extensive epithelioma along with glands in the upper part of one anterior triangle. The mouth remained well, but the patient returned with rapid enlargement of the glands beneath the sterno-mastoid on both sides of the neck, and, as we all know, the very rapid enlargement of epitheliomatous glands means a cystic condition from degeneration of the rapidly growing cancer cells. In this instance I thought it worth while giving the patient another chance, and I did a most extensive operation on both sides of the neck, removing most of the structures of the neck. Unfortunately on one side, while the mass was being taken away the cyst burst and the fluid, containing flakes of epithelium, poured into the wound. I washed and sponged it out as thoroughly as I could, but, although the other side healed perfectly, that on which this accident happened became brawny and thick all over; in fact, there was a diffuse epitheliomatous infiltration of the whole wound, and there can be no doubt that the groups of epithelial cells which escaped from the ruptured gland grew in the parts of the wound in which they were deposited. In this case, therefore, I thought it well to destroy any epithelial cells which might have remained in the wound by the strong carbolic acid.

CASE 8 (*No. 38, Table III.*). *Epithelioma of the right tonsil spreading on to the tongue, floor of mouth, soft palate, and side of pharynx; a mass of glands at the angle of the jaw.*—A man aged forty-four years was admitted to King's College Hospital on June 7th, 1895. For the last few weeks the patient had noticed some hoarseness, and about a fortnight before admission he had found a swelling at the angle of the jaw. This swelling increased rapidly. On examination a large, ulcerated, warty growth was seen on the right tonsil extending on to the soft palate, pharynx, floor of mouth, and base of tongue. Within the last few days it had interfered with swallowing and to some extent with breathing. There was also pain of an intermittent character running up to the ear. The larynx and epiglottis were free. There was a mass of glands at the angle of the jaw. On June 12th, 1895, the following operation was performed:—In the first place the trachea was opened and a Hahn's tube inserted. A long incision was then made on the right side of the neck along the anterior border of the sterno-mastoid muscle, and the mass of glands with the material beneath the sterno-mastoid and the jugular vein were taken away. A second cut was then made parallel to the hyoid bone, and the sub-maxillary gland with the adherent lymphatic glands were removed. The external carotid artery was then tied. The mouth having been opened the cheek was split from the angle to the masseter muscle. Free access was then obtained to the disease in the mouth. With scissors the healthy tissue around the growth was divided, the finger in the outside wound pushing aside the carotid artery and vagus nerve and indicating the limits of the disease. The posterior half of the tongue on the right side was taken away, along with the floor of the mouth at that part, tonsil, pillars of the fauces, part of soft palate, and portion of the pharynx, the whole being removed in one mass. The wound was stuffed with cyanide gauze sprinkled with iodoform. A stomach tube having been inserted, the external wounds were stitched up, a large drainage-tube, however, being fastened into the lower angle of the cervical incision, and passing into the mouth; a fresh Hahn's tube was then put in. There was a good deal of shock after the operation, but the patient had recovered from that by the next morning, and he went on well, the temperature only twice reaching 100°. For four days the stomach tube was left in untouched, and then it was subsequently passed whenever necessary. He began to try to swallow on June 21st, but without very much success. However, this rapidly improved, and at the time of his death he was able to swallow practically all that was required in the way of nourishment. A fresh Hahn's tube was put in on the day after the operation, and on the second day an ordinary tracheotomy tube was substituted for it and kept in for two days. The drainage-tube in the neck was left out on the tenth day. The patient was doing remarkably well, and it was a question whether he should not go home, when on July 7th, twenty-five days after the operation, while he was washing out his mouth previously to taking some food, it was noticed that the material was stained with red blood. This rapidly increased in amount, and in three minutes, before assistance could reach him he was dead, the blood having apparently passed straight down his larynx and choked him. On post-mortem examination it was found that the wound was looking remarkably well, contraction had been going on rapidly, and a good deal of it had become lined with epithelium. At the lower angle there was quite a small sinus which ran down to the ligatured external carotid artery, and this ligature had become partially separated. There was no clot whatever in the artery; the lungs, trachea, &c., were full of blood. There was no sign of any recurrence, the disease apparently having been completely removed.

CASE 9 (*No. 39, Table III.*). *Epithelioma of the tonsil, soft palate, side of pharynx, and right side of the tongue; a large mass of glands in the right side of the neck.*—A man aged fifty-six years was seen in consultation with Dr. Semon and Mr. Horsley on June 28th, 1895. The history of the case was that the patient was not aware that anything serious was the matter with his throat till three weeks previously, when suddenly a quantity of blood came into his mouth along with some very foul-smelling discharge. For some time previously his throat had been uneasy, but he had not paid any attention to it. A few days before we saw him he had consulted a surgeon, who had refused operation. On examination a considerable mass of glands was felt on the right side of the neck at the upper part of the anterior triangle, evidently adherent to the vessels and extending under the sterno-mastoid muscle. On opening the mouth a projecting warty mass was seen on the right side of the throat and extending on to the tongue; it had apparently begun in the tonsil, which was deeply excavated, and thence had spread on to the neighbouring parts. Only the back part of the tongue was affected, but there the disease went pretty deeply; above it it had spread on to the palate, and behind to the side of the pharanx; the epiglottis and the larynx were free. The lower and posterior limits of the disease could be felt. The patient did not complain of any acute pain, but the ulcer was constantly bleeding and there was much foul discharge from it. The patient appeared to be a robust man, but was not so in reality; his urine contained one-eighth of albumin, and his pulse was quick and readily compressible, frequently numbering 120. From my experience of the preceding cases, especially the last, which was at that time going on extremely well, it was evident that the disease could be removed with a reasonable prospect of success, while it was clear that the patient had only a very short time to live, probably only a week or two, if nothing were done. The whole matter was therefore put before the patient, special stress being laid on the risks of the operation and chiefly, as it happened, on the danger of septic pneumonia and septic disease generally, but he expressed himself as most anxious to have the chance. On July 1st the following operation was performed, in which I had the advantage of the assistance of Mr. Horsley and Dr. Semon. In the first instance preliminary tracheotomy was done and a Hahn's tube inserted. An incision was then made along the anterior border of the sterno-mastoid muscle, and the mass of glands, which extended up to the mastoid process and under the muscle, was removed along with the jugular vein, the external carotid artery, and the digastric and stylo-hyoid muscles which were involved. The cheek was then split from the angle as far as the masseter, and the mass in the mouth was removed in one piece in the same manner as in the last case. It was then found that the internal carotid artery was involved in the growth, and was, in fact, lying almost bare on the surface of the ulcer of the tonsil, so that bleeding would almost certainly have occurred from it in a few days. As the patient was by this time suffering a good deal from shock, more so than any of the other cases, and as his pulse was very small, I feared that the removal of the diseased portion of the artery would produce so much anæmia of the brain as to preclude the chance of his recovery from the shock, and therefore I thought it wiser to peel off the tumour as far as I could from the artery and then remove it later, when he had somewhat recovered. The wound was then stitched up, the pharynx being packed with iodoform gauze, and a drainage-tube was inserted at the lowest angle. A stomach tube was also introduced. Strychnine was given before and during the operation. The Hahn's tube was removed after the operation and a Parker's tube substituted for it for twenty-four hours, when it was left out. For some hours the patient lay in a very collapsed condition, but gradually improved towards evening, and the next morning, after I took out the packing and the tracheotomy tube, he began to mend rapidly. During that day we began to feed him with the stomach tube, and he was able to sit up and wash out his mouth with sanitas at frequent intervals. He went on steadily improving, his temperature having only once been up to 100° F., till the morning of the fourth day, when he seemed quite himself again. I therefore thought that the time had come when the piece of diseased artery might be taken away with safety, and accordingly I gave him a little chloroform, and, dividing the stitches, I passed a ligature above and below the diseased area, tied the vessel, and removed the intervening portion. This was done quite easily, with almost no disturbance of the wound and no bleeding. The part exposed was then touched with undiluted carbolic acid with the view of sealing the tissues against septic infection and the stitches were reinserted. The patient passed an excellent day, but towards night he began to cough and had much difficulty in bringing up a quantity of tenacious mucus, his temperature began rapidly to go up, and signs of septic pneumonia set in, of which he died on the morning of the sixth day after the operation. It was noticed also on the fifth day that there was paresis of the leg and arm on the left side, and it is possible that this condition, which was no doubt the result of the ligature of the internal carotid artery, may have considerably contributed to the fatal result. The occurrence of septic pneumonia after all operations in the throat is, of course, very common, quite apart from the severity of the operation, and it so happened that it was a danger to which I specially called attention before the patient decided on the operation, and the only question which exercises me is whether the interference on the fourth day led to it or whether it would have occurred in any case; and also how far the paralysis which followed the ligature of the artery had to do with the fatal result. I do not think that it would have been wise to have left the diseased portion of artery in the wound for a longer time, and the disturbance caused by its removal was extremely slight and I can hardly think that the infection occurred at that time. At the same time it is a perfectly open question whether it would not have been wiser to have risked taking the artery away at the time of the operation.

CASE 10 *(No. 40, Table III.). Epithelioma of the right tonsil, floor of the mouth, base of tongue, pillars of the fauces, soft palate, and side of pharynx; glands in the neck.*—A man aged fifty-five years was sent to me by Dr. Harvey and admitted to King's College Hospital on July 22nd, 1895. The first thing that the patient noticed was the swelling of the glands in the neck about two months before admission, and about that time he also had shooting pain about the base of the tongue. About a month before admission he first observed a growth on his tongue. The patient was old for his age and was not a very strong man, but had no organic disease of any kind. His only complaint was of intermittent shooting pain, inability to move his tongue properly, and frequent presence of blood in his mouth. On examination the glands in the anterior triangle were found to be considerably enlarged, more especially towards the angle of the jaw, but also extending as low as the thyroid cartilage. On examining the mouth a large cauliflower growth was seen at the back of the right side of the tongue, which extended on to the floor of the mouth, the right tonsil, and the adjacent part of the soft palate. Its further extent could not be made out on account of difficulty in opening his mouth till he was under an anæsthetic, when it was found to extend some distance on to the side of the pharynx. The entrance to the larynx and the epiglottis were apparently free. On July 24th, 1895, the glands and the neighbouring tissues were dissected out from the anterior triangle, but it was not found necessary to remove the internal jugular vein; the posterior belly of the digastric, however, was found attached to the growth and was taken away. A ligature was put round the external carotid artery, but was not tied, and the wound was stitched up. Owing to his condition I thought it advisable to defer the completion of the operation for a week. The wound healed by first intention except where the ligature was, and on July 31st, 1895, the second part of the operation was proceeded with. In the first instance the trachea was opened and a Hahn's tube inserted, the greater part of the former incision was re-opened, and the ligature which was lying around the external carotid artery was tied. The incision was then extended forwards under the angle of the jaw, and the sub-maxillary gland, which had not been removed in the previous operation, was taken away. The cheek was then split and half of the tongue freed right down to the hyoid bone, and removed along with the rest of the growth in one piece. A large drainage-tube was inserted, the wound was packed with cyanide gauze sprinkled with iodoform, and a tube passed into the stomach. The rest of the incision was then stitched up. The patient did not have any very marked collapse and passed a very good night afterwards. The next morning, however, it was evident that his mind was deranged and he was most difficult to manage both as to feeding and in other ways; and I may here say that from this time till the end of the case he never recovered his reason. As he had pulled out the œsophageal tube during the first night it was passed whenever it was necessary to feed him, but he struggled very much against it and it had to be done by force. Apart from his mental condition he went on very well for some days, but there was more septic decomposition about the wound than had occurred after any of the other operations. Still, his temperature remained normal till the eighth day, when it became somewhat irregular, going up to about 101°F. in the evening and falling in the morning. The tracheotomy tube was left out on the day after the operation. On the twelfth day (August 11th) he coughed up a little blood, and a little was seen to be oozing from the wound. Pressure was applied to the carotid and the bleeding ceased, the amount of blood lost being estimated to have been about half an ounce. I was sent for, but, being out of town, one of my colleagues arrived two hours after the bleeding ceased and he at once tied the common carotid artery low down in the neck, thinking that probably the blood had come from the external carotid artery. Next day it was noticed that there was paresis of the left arm and leg, and this had developed by the following day into complete hemiplegia. On August 14th, there was a repetition of the bleeding which had occurred on August 11th, and when I opened up the wound I found that it simply came from the granulations, and it did not again recur. His condition from this time onwards was a very bad one. He was completely deranged and very difficult to deal with, would not open his mouth, and could not understand what he was told to do. His left side was completely paralysed, including the left side of his pharynx, while we had removed the right side; consequently he could not swallow, and the saliva, mucus, and discharges accumulated in the wound in spite of all that we could do to prevent it, and no doubt passed down into his lungs. His temperature continued to go up and he had a good deal of cough. He continued very much in this condition, gradually going downhill till Aug. 31st, when he died, a month after the operation. On post-mortem examination gangrene of the upper lobe of the right lung was found, with a considerable quantity of pus lying in it. There was white softening of the anterior part of the right cerebral hemisphere as far back as the fissure of Rolando. There was no clot in the carotid artery. My own experience of post-operation mania, of which I have seen five or six cases, is very bad, and I think that, as a rule, the patients die, and I believe this is the experience of other surgeons. At the same time the case furnishes a very instructive warning, especially when taken in connexion with Case 9 and several cases which will be found in Table III. Ligature of the internal or common carotid artery after operation on the throat has been followed by hemiplegia, showing us that such a procedure is accompanied by the very greatest risk, and should only be done in the absence of any other possible method of meeting the circumstances of the case. Against this statement may be instanced the fact that in the next case (Case 12) I ligatured the internal carotid artery for hæmorrhage without any such result, but in that instance the artery had been compressed in the midst of cicatricial tissue for some months and was very much diminished in calibre, and by that time no doubt the cerebral circulation had sufficiently adapted itself to the small amount of blood brought by it, and its ligature did not produce any serious effect.

CASE 11 *(No. 84, Table III.). Epithelioma of the left tonsil, pillars of the fauces, and soft palate, spreading on to and involving the lower jaw at the posterior part; a mass of glands in the anterior triangle of the neck.*—A man aged fifty-five years was sent to me by Dr. Harvey and admitted to King's College Hospital on July 15th, 1895. The patient first noticed tenderness in his throat and gums about six weeks before admission, and very shortly afterwards a swelling appeared in the neck. Thinking that the trouble was due to a bad tooth one was extracted, but without any good result. There was a mass of considerable size at the posterior part of the left anterior triangle and extending under the sterno-mastoid; this mass was very fixed. On looking into the mouth, an ulcer with hard edges and warty surface was seen on the left tonsil, reaching and firmly adherent to the alveolar border of the lower jaw, spreading into the soft palate, and to a slight extent to the gum of the upper jaw; it also reached the floor of the mouth, but had not yet affected the tongue. The patient was said to be addicted to drink, but the various organs were healthy. As the disease was extensive and the patient somewhat weak, and as I also had to leave town for a few days, I thought it would be better to divide the operation into two stages, removing the glandular mass in the first instance and then subsequently the disease in the mouth. Accordingly, on July 16th, 1895, I made a vertical incision over the glands and removed them along with the structures which they involved—namely, the internal jugular vein, the external carotid artery and its upper branches, the hypoglossal nerve, the digastric and stylo-hyoid muscles, and all the fat and glands under the sterno-mastoid muscle. As the wound was an aseptic one I had no anxiety about the matter and the patient had no bad symptom. On July 24th I proceeded to the second part of the operation—viz., the removal of the mass in the throat. After performing tracheotomy the upper part of the first incision, which had healed, was opened up and a fresh cut was carried forward from it in a curved manner over the sub-maxillary region, and the sub-maxillary gland, with some enlarged lymphatic glands adherent to it, was removed. This flap of skin, together with the masseter muscle, was then turned upwards and the jaw sawn through in front of and behind the affected part. The interior of the throat could now be well seen, and an incision was made around the growth and it was removed, the pterygoid process being clipped off and taken along with the mass. As a week had elapsed since the ligature of the external carotid artery I was very much afraid that anastomotic circulation would have been re-established in the part and that there would be great trouble from oozing. To my surprise, with the exception of the skin incision, which bled pretty freely, there was no more bleeding from the deeper parts than if the external carotid artery had just been tied. The wound was packed with cyanide gauze powdered with iodoform, and the greater part of the skin incision was stitched up, room being left at the lower part for the subsequent insertion of a drainage-tube. The patient went on very well without any febrile symptoms, and he was fed for about a fortnight with the stomach tube, passed when necessary. At the end of that time he began to swallow and was soon able to take sufficient fluid nourishment. He was discharged towards the end of August in very good health. In the beginning of October, however, it was found that there was an excavated ulcer in the middle of the scar opposite the part where the angle of the jaw had previously been. Examination of scrapings from the interior of the ulcer showed numerous epithelial cells, and its margins were hard. It was, therefore, evidently a recurrence. The patient was accordingly readmitted to the hospital on Oct. 7th.

CASE 12 *(No. 62, Table III.). Second operation.*—His condition on admission was that he had this hard nodule in the mouth, and the greater part of it was ulcerated. On Oct. 9th, 1895, the following operation was performed. A curved incision was made from just in front of the ear forwards for about four inches, following the anterior border of the lower jaw. A considerable portion of skin above this incision, which was somewhat adherent, was removed. The cheek was split from the angle of the mouth to meet the former incision, and the whole of the upper part was dissected up, the edges of the wound being well separated, when the recurrence was seen to be much more extensive than was supposed. It involved the masseter and internal pterygoid muscles, and also the ascending ramus of the lower jaw. This portion of the jaw was disarticulated and removed, and the whole of the masseter and internal pterygoid muscles, part of the pterygoid plates, and as much of the scar tissue as possible was taken away. As I was not quite certain with regard to the scar tissue whether I had quite got all the disease I applied nitric acid to the raw surface; the wound was stuffed, a large gap being left; no attempt at a plastic operation was at that time made. No tracheotomy was performed. The patient was a good deal collapsed after the operation, but recovered and went on very well till the ninth day, when bleeding occurred from the wound, and on investigation it was seen to come from the internal carotid artery, which was lying free on the surface of the wound. The artery was tied above and below and divided. No symptoms of paralysis followed the ligature of the artery and the patient went on very well. He was fed with a stomach-tube, it being impossible for him to swallow on account of the large opening in his cheek. The greater part of the wound having healed, the hole in the cheek was filled up by a plastic operation on Nov. 20th, 1895, the edges being pared and a large flap of skin being brought over from the back of the neck. In three or four days he was able to swallow very well, and he was discharged on Dec. 12th.

MATRONS' COUNCIL.—The second of a series of demonstrations on nursing will be held in the Medical Society's rooms, Chandos-street, Cavendish-square, on Thursday, Feb. 27th, at 8.30 P.M.

BRISTOL MEDICO-CHIRURGICAL SOCIETY.—The fifth meeting of the session was held on Feb. 12th in the Medical Library of University College, Dr. A. J. Harrison in the chair.—Dr. Shingleton Smith showed a patient with Chronic Chorea of twenty years' duration, with great Muscular Hypertrophy.—Dr. Waldo and Dr. Michell Clarke spoke on the case.—Dr. Shingleton Smith also showed a case of well-marked Diffuse Scleriasis.—Dr. Rogers and Dr. Waldo spoke on the subject.—Dr. Michell Clarke showed a case of Locomotor Ataxy in a young man; and also a patient with Cirrhosis of the Lung with Bronchiectases, treated by intra-tracheal injections.—Dr. W. C. Swayne read a paper on a case of Absence of Uterus, and on a case of Uterus Bicornis. Dr. Harrison, Dr. J. G. Swayne, and Dr. Aust Lawrence spoke on the cases.—Dr. A. J. Harrison read a paper on a case of Malignant Disease of the Transverse Colon, with Secondary Deposits in the Liver

Clinical Remarks

ON

DIVISION OF THE VAS DEFERENS IN CASES OF OBSTRUCTIVE PROSTATIC HYPERTROPHY.

Delivered at St. Peter's Hospital on Jan. 3rd, 1896,

BY REGINALD HARRISON, F.R.C.S. ENG.,

SURGEON TO THE HOSPITAL.

GENTLEMEN,—I shall confine my remarks to division of the vas deferens as a remedy for enlarged prostate. In 1893 Dr. W. White of Philadelphia suggested that castration might be tried as a remedy for troubles connected with certain forms of prostatic hypertrophy, with the result that this practice has now been adopted in numerous instances with some amount of success. It is interesting to notice, now that attention has been called to the possibility of its practical application, how often the fact has been stated in surgical literature that interference with portions of the genito-urinary tract is followed by atrophy of the prostate. Only the other day, in reading an excellent treatise on this organ by Dr. Decimus Hodgson (published by Messrs. Churchill in 1856), I notice that it is observed: "In persons who have been castrated the prostate dwindles down almost to a rudimentary condition."

At an early period in this investigation it seemed to me that without resorting to such extremes as the removal of both or even one of the testes good results might probably be obtained at far less risk by the simple expedient of division of the vasa. Apart from a casual case of this kind, which came under my care some years ago and has since been reported,[1] and in which I practised this expedient, there is collateral testimony in favour of it. If we turn to records of injuries to the vas deferens it will be found that Birkett, Hilton, and others have shown[2] that atrophy of the testis is a sequence in the human male of rupture or section of this duct. If this is so, why should we not take advantage of it and in this way induce prostatic atrophy without resorting to castration? It is probable that in a certain number of prostatic cases the amount of shrinkage of the gland necessary to make all the difference between a life of misery and one of comfort is comparatively slight. This is a conclusion which may fairly be drawn from the observation that, although prostatic enlargement is common, only a small number of males thus affected can be said to suffer from it. I am disposed to think, from what I have already seen, that division of one vas or both vasa is capable of providing in many instances the relief that is thus desired. Then there is the further consideration that, if the minor proceeding fails, castration may still be resorted to without prejudice. There can be no doubt that in elderly men the latter operation often proves to be a very serious matter.

I will now proceed to mention certain effects noted as having followed division of one vas or both vasa in the human species. In the first place, some change in the size or consistence of the testis in the way of shrinking or softening has generally been evident in the course of a few days. Following upon this, analogous alterations have been discovered by rectal examination as taking place in the prostate, corresponding, of course, to whether one vas or both vasa were divided. In others the latter changes have been inferred more by the easier introduction of the catheter which followed, or, as some patients remarked, by the lesser distance the instrument had to traverse the urethra before urine flowed, than by recognisable structural alterations. I have also noted that the intervals between urinations become rapidly more prolonged; in some instances periods of two and three hours have been doubled. Further, the easier passage of instruments into the bladder which has generally followed has reduced liability both to hæmorrhages and cystitis. Hence urine which previously was discoloured, cystitic, and offensive became gradually normal both in appearance and composition. Prostatic spasm has also been noted as ceasing. Some of these effects are probably directly due to a diminished blood current through the prostate following upon the operation. I cannot say that I have yet met with an instance where a patient who has long been habituated from prostatic enlargement to the use of the catheter has been able entirely to discard it, though, as already stated, the application of the instrument may subsequently have ceased to be a cause of distress. I believe, also, that where the bladder has been pouched, as is so frequently the case in instances of enlarged prostate, removal of the urine with the catheter has been more completely accomplished. For the same reason irrigation of the bladder, when necessary, has been more effectually practised. I think that these results have followed the division of the vasa, not by the inducement of a complete atrophy of the prostate, but of a degree and kind sufficient for the purpose.

In explaining the somewhat varied effects following this and kindred operations on the genito-urinary tract it must be remembered that the enlarged prostates of elderly men vary considerably in their structure and consistence. Putting aside instances of carcinomatous, tuberculous, and such-like glands where these operations are inappropriate, it will be found that where muscular tissue predominates greater good may be expected and usually follows than where these proportions are reversed and the part is reduced to a condition allied with a fibroma. However, as it is not always easy to accurately determine these structural differences beforehand, the greater is the reason why a tentative measure should, in case of doubt, be first undertaken. Pedunculated fibromatous prostates causing obstruction and cystitis will probably still be best treated by supra-pubic prostatectomy. The effects that follow division of the vasa relatively to the genital function may be stated as being in general correspondence with those which are observed after castration. A unilateral operation leaves this function much in the same state as previously existed, whilst the severance of both tubes may be said to be likely to abolish it. The most perfect example of unilateral testicular atrophy I ever saw followed rapidly upon the accidental division of the corresponding vas deferens in an operation for varicocele. As the subject of this accident is now the father of several healthy children it does not appear that the procreative process in this instance suffered very materially.

I will now pass on to describe the method I employ in the division of the vas deferens and to illustrate clinically its application. After trying several plans for dividing the vas after passing through the external abdominal ring subcutaneous and otherwise, the following appears to be the best. The scrotum having been shaved and prepared antiseptically, the tube is carefully sought for as it enters the scrotum. It being held subcutaneously in position between the finger and the thumb, a vertical incision through the skin is made over it to the extent of an inch or so. The spermatic cord having been recognised, the vas is separated from the other constituents by the finger and forceps by merely carefully teasing away the connective tissue about it. In doing this care should be taken not to drag on the testicle too much, but to support it whilst a loop of vas is detached, so that the connexions of the former may not be loosened. The vas should be well cleared of all other textures, and then a loop of it is gently drawn out through the wound with a blunt hook. The loop is then encircled below the hook with a silk ligature, not too thick, which is tightly knotted. The ligature is cut off short, the extraneous portion of vas removed by scissors, and the pedicle dropped into its place. The wound is closed with a catgut suture or two, and fitted with a small drainage-tube. There is no bleeding worth mentioning if the operation is done in this way, and the wound usually heals in the course of a few days. I have reasons for believing that in a short time the vas, thus treated, becomes converted into a fibrous cord, which eventually, with the corresponding testicle, undergoes atrophy. If the vas, before the ligature is applied, is carefully cleared of other tissues pain is not usually complained of, as is often the case when the whole thickness of the spermatic cord is included in a ligature, as is sometimes done in cases of castration. Both vasa may be so treated simultaneously, but I prefer doing one at a time, and then, if the object is not sufficiently attained, proceeding subsequently with the other. It will be found that, so far as the technique of the operation is concerned relative to the general condition of an enfeebled patient, it compares favourably with either single or double castration. If anticipations are realised, as seems likely to be the case, unilateral or even bilateral division of the vasa will be

[1] Brit. Med. Jour., Sept. 23rd, 1893.
[2] Holmes's System of Surgery, first edition, vol. ii.

resorted to at an earlier period of the disorder than would be the case if ablation of the testicles was the only alternative. The possibility of dilatation and atrophy of the kidneys arising out of frequent and obstructed micturition, as indicated by changes in the urine, would be sufficient to require this should other measures fail in relieving such symptoms as hypertrophy of the prostate not infrequently occasions.

I will now briefly refer to two cases illustrative of some of these remarks. The first is that of a man aged seventy-three whom I saw in October, 1894, who had a very large prostate and an irritable bladder, and was almost entirely dependent on the use of the catheter. The frequency in passing urine increased, and the latter became very foul and ammoniacal. In the course of a few weeks phosphatic concretion took place, and I removed some stone with the lithotrite. Relief followed this, and the sound showed that the bladder was apparently clear. In the course of weeks the old prostatic symptoms returned with greater severity, and the catheter was again resorted to about every hour both day and night. In October, 1895, it was again necessary to clear the bladder by the lithotrite of encasing phosphates, and at the same time, after explaining matters to him, I took the opportunity of dividing the left vas in the manner described. He was in a surgical institution whilst this was done, and able to return home on the seventh day. I have seen him since, and the constrast between his condition now as compared with what it was prior to the latter proceeding is most marked. The testis and prostate are both undergoing atrophy, his catheter enters without provoking spasm and quite easily, and, as he remarks, "I reach urine sooner by an inch than I did previously." He is able to hold his urine comfortably for five or six hours and can spontaneously expel more than he previously did. Further, his urine is perfectly clear, with a normally acid reaction, a condition which had never been previously arrived at since I have known him.

The second case is one you saw me operate upon a month ago, and as, so far as I can judge, no stone or other complicating condition exists, you can form a fair opinion as to the more immediate effects of this operation so far as the prostate alone is concerned. I took the patient into hospital for the reason that the frequency of his micturition was about every two hours both day and night, or even oftener, according to his statement, under which irritation his general health not unnaturally was giving way. He had a large prostate with the left lobe predominating, but he was not dependent on the catheter. Having explained the matter to him, Mr. W. Braine administered ether, and I divided the left vas in the manner described. I should mention that this patient is seventy-two years of age. He has already derived advantage in respect of the symptoms complained of, and the case is one which may be watched with advantage. Whatever explanation may be offered, within a week after the operation the patient was able to retain his urine for the whole night. He left the hospital on the tenth day and has since reported himself as well.

In the opinion I have formed as to the utility and propriety of dividing the vas in cases coming under this category I do not stand alone, and unless I am mistaken I anticipate that further evidence in support of it will soon be forthcoming. The literature, however, will already be found to confirm some of the conclusions I have thus ventured to formulate. Too much importance must not be attached to some experiments on animals which have been made in connexion with this subject. The moral influence of certain conditions and the material changes they give rise to, so far as they relate to the genital function in the human male, find no counterpart in the animal species so far as I have been able to ascertain. In offering these remarks on this aspect of a most important subject I do so in the belief that the case as I have endeavoured to put it, though not fully proven, has been sufficiently made out by direct and indirect investigation as to warrant a fair trial being made of it before we adopt castration as a remedy for prostatic hypertrophy and certain of the troubles arising out of it.

In a paper I have read since these remarks were made Professor Guyon of Paris [3] has added important testimony in favour of this proceeding. He publishes the particulars of two cases of bilateral division of the vasa in men seventy years of age or thereabout where the benefits obtained were prompt and conspicuous, and in correspondence with effects I have already noted. The paper contains a brief history and other experiences of the operation, and is deserving of careful study.

[3] Congrès de Chirurgie, Paris, 1885.

VITALITY.

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ALL who have considered the question of the probable nature of vitality, and the essential points by which the living has ever been distinguished from the non-living, must have been struck by the fact of the comparatively small proportion of the matter of the world capable of assuming the living state. The matter of our globe that never has lived and that never can live—never can form part of any form of living organism of which we have knowledge or experience—is enormous in amount; and when we think of the very small dimensions of our globe as compared with those of the non-living matter of the universe we can scarcely wonder at the exalted views which have been entertained by some scientific men concerning the enormous importance of matter, or at the conclusion that from matter and its properties life itself has been evolved.

Of the very small amount of matter which forms the bodies of all existing living organisms, how large a proportion has already entered into the composition of the countless living organisms by which the surface of the globe has been successively peopled in past ages. Indeed, the very same matter has lived and died over and over again, as generation has succeeded generation since the first beginning of life, and these same material atoms will be taken up, will live and die and be appropriated again and again by the living things which are to succeed. The circumstances under which a few eternal indestructible atoms are selected, and form the bodies of living organisms and become grouped and arranged so as to form chemical compounds, with special properties and tissues possessing wonderful endowments, have been studied with the greatest care by hundreds of skilled investigators, in the hope that the cause of particular chemical combinations and the precise mode of production of special structures would be revealed. Many theories to account for the facts have been advanced, not a few of which have met with warm approval and have for a time been generally accepted as true, but, nevertheless, have soon been proved to be inadequate and have been replaced by speculations equally unsatisfactory. The doctrine which has been pressed with greatest confidence of late years, and which, therefore, has been most popular, assumes that every one of the multitudes of different living forms, past and present, is to be attributed to the properties of the material atoms of which its body is composed and the influence of certain external conditions—varying in different cases, and perhaps determining certain variations in the form, structure, and composition of the organisms to follow. But all the physical doctrines of life yet advanced repose on promises or prophecies or what has been called the tendency of thought. Though not now resting upon facts the truth, it is said, will be proved some day; but so far from any real advance having been made in this direction there is no probability of the fulfilment of any prophecy regarding any mechanical view of life. Such doctrines have been before the public in their revived form for forty years or more, but they still rest on authority only, while facts and reason are opposed to their acceptance.

With the permission of the Editors of THE LANCET I propose to bring under the notice of the profession in a few short papers some facts and arguments concerning the general phenomena common to all life, which, as it seems to me, ought to be fully considered before any hypothesis is accepted as an explanation of the phenomena of living things on the ground that they are one with the non-living. Such views have, indeed, exerted a wide influence for many years past, but though they have received very influential support they are still enveloped by the mists of conjectural science. In every part of the world are persons much interested in this question who are by no means satisfied with the views generally entertained and taught, and among them are some who have grown old in universal physico-chemical belief, but are just now beginning to discern and

acknowledge some mystery in the changes characteristic of life. It is to be hoped that the acknowledgment of mystery will not lead to increasing obscurity.

I am particularly desirous of directing attention to the question of vitality just now because during the past year there have been indications of a change of opinion, and the prospect of obtaining a patient hearing is better than it has been for thirty or forty years. The spread of bacteriological investigation is familiarising an increasing number of observers with the use of high magnifying powers and methods of preparation of great importance in the higher branches of histological research; and there are many members of the profession and advanced students who are eminently qualified to judge of the facts and arguments advanced concerning the important question of the nature of vitality and to form a correct estimate of the bearing of observed facts of nature in health and disease upon the question.

I shall have to consider the probable nature of those wonderful changes which take place when lifeless nutrient matter or some of its constituent particles come into contact with matter that already lives, the nature of the new powers communicated to it, and the manner in which these new powers are transferred. Although our knowledge concerning these matters is at present imperfect I hope to show that we are able to penetrate more deeply into the mystery than anyone studying our most advanced works on biology would be led to suppose was at this time possible. Unfortunately many authorities whose doctrines have long influenced general opinion continue to repeat in most confident language statements made long ago in favour of mechanical hypotheses without adducing fresh facts or advancing new arguments.

The question of the nature of the power or endowment which establishes a sharp line of distinction between every form of living matter and every kind of matter in any other state or condition known to us, as well as all energies, forces, powers, or agencies whatever, is of absorbing interest. No physiological action, and no pathological change in nature, occurs which is not closely connected with, or directly or indirectly consequent upon, vital action of living matter. From the first movement of the matter of the living germ to the last moment of living existence—from the first slight departure of living matter from its normal condition to the establishment of morbid changes which must be fatal, the influence of vital change is paramount and is distinct from every accompanying physical and chemical action yet discovered. So fundamental are the differences between vital and physical processes that it may be safely said there is no analogy between them. The difference is not one of degree or relation, but it is essential and absolute.

To attempt to determine the nature of mind, thought, or will without in the first place determining the nature of vitality seems useless. For in all cases vitality exists long before there is evidence of any process that can be properly called mental, and certainly vitality exists in a multitude of cases in which mind is absent at every period of life, and all living beings may live for a time and die without the manifestation of mental action. Mental operations may cease although vital actions continued to be performed, but of mental action without living matter we have no knowledge. In the absence of vitality mind cannot be.

The rate at which vital actions are performed is not uniform, but varies greatly in different cases and under different conditions. The influence of all our remedial measures adopted in departures from the healthy state is due to changes brought about in processes dependent upon vital actions. We are able to facilitate or retard vital actions in some cases and to modify, check, or stop them—to reduce them when too active and to increase them when proceeding too slowly. Some of our most certain and valuable remedies act upon certain forms of living matter in the organism, while on other forms they exert no influence, and it is remarkable that of certain substances which have a very decided action upon certain forms of living matter in the human subject an overdose becomes a poison, stops vital action altogether; and yet may have no action upon the corresponding living matter of some of the lower animals, and may even be taken with impunity or perhaps constitute a harmless food. In some cases by encouraging increased action in one or more kinds of living matter in certain tissues or organs we may reduce to its normal degree exaggerated action tending to derange, damage, or destroy some more important tissue or organ near to or distant from the seat of our treatment. The recognition of this principle enables us to be of service in the treatment of many forms of inflammation and fever, and even in certain forms of morbid growths.

(To be continued.)

FATAL PULMONARY APOPLEXY (PROBABLY EMBOLIC) IN AN APPARENTLY HEALTHY GIRL AGED FOURTEEN YEARS.

BY W. PASTEUR, M.D., F.R.C.P. LOND.,
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THE following case, which came under my care in June, 1895, in consultation with Dr. Marriott of Sevenoaks, presents several features of interest.

I happened to be well acquainted with the previous history of the patient, having known her from early childhood. With the exception of the usual childish ailments and of one severe illness at eleven years of age she had always enjoyed good health. Her powers of physical endurance, however, were perhaps somewhat less than her sturdy build would have led one to expect. She was healthy looking and had unusually bright colouring, a feature common to several members of her father's family. When eleven years old she had whooping-cough in the wake of influenza, which was complicated by extensive broncho-pneumonia of both lungs; the attack gradually subsided after a very critical week, during which the degree of cyanosis of the face was very unusual. She made an apparently complete recovery and resumed all her usual occupations, including violin playing, to which she devoted two or more hours a day. At this date her heart showed no indications of disease. Her last illness began quite suddenly on June 16th, as she was returning home from a two-mile walk, just after the termination of a perfectly normal "period." She was seized with breathlessness and had to be helped home. She was at once put to bed, but had to be propped with pillows into the sitting posture to enable her to breathe. In this position she was fairly comfortable and felt better next day, when first seen by Dr. Marriott, who promptly recognised the gravity of the case. When I saw her on the evening of the 18th her condition was as follows. She had orthopnœa, an anxious face, and rather quick, panting respiration, chiefly upper costal. A deep-red flush was on each cheek and a dusky pallor elsewhere. The eyes looked very large and bright. She made short, whispered replies to questions. There was an increased area of heart impulse, which was diffuse and undulating. The sounds were confused, but a sharp accentuated second sound was well heard at the base. No murmurs were made out. The pulse was running and uncountable. She had very troublesome sickness after all food or drink. She was ordered one-eighth of a grain of morphine under the skin, also hypodermic injections of strychnine and ether. On the 19th her condition remained unchanged. Morphine was ordered to be repeated if the restlessness increased and nutrient enemas. On the 20th her condition remained about the same. On the day preceding and on this day numerous moist crepitations were heard in the right axilla without obvious dulness. The breath sounds were loud at the apices. The back was not examined owing to the patient's condition. The cardiac dulness had decidedly increased and reached fully one inch beyond the right edge of the sternum. The pulse was a shade better in quality than the day previous. The heart was still churning. On one or two occasions, including this day, I could distinguish temporary murmurs, both systolic and presystolic in time, but they were never present during many successive beats. The general condition varied. The patient had bouts of agonising dyspnœa followed by periods of exhaustion and comparative quiet with disturbed sleep. On the 21st she had a very bad night, with extreme restlessness and cyanosis; the cough was very frequent and distressing, and she expectorated about three ounces of dark blood and blood-stained mucus. She rallied towards morning and was then in much the same state as at my previous visit. The physical signs were less in front of the right axilla and the breath sounds were clearer, but signs of engorgement and œdema were now present all over the posterior portions of the lungs.

She had been taking two-minim doses of tincture of digitalis in iced water with a few drops of brandy every half hour since the previous day. On the 22nd she had another bad night with decided increase of delirium and awful dyspnœa and some wandering during the day. The face, if possible, was more dusky. When seen at 9 P.M. she appeared to be moribund. The breathing consisted of a succession of short jerky sighs, the hands were icy cold, and the legs cold up to the knees. The radial pulse was fluttering and barely perceptible and there was whispering delirium. She was ordered one-tenth of a grain of morphine and stimulants with local application of warmth. She slept well after this and on the 23rd had rallied surprisingly in all directions. The improvement was maintained throughout the day, but towards evening the unfavourable symptoms returned. At midnight the patient awoke from a restless sleep and asked the nurse for some water, but before this could be given her she had fallen back dead.

It is matter for regret that an account of the post-mortem appearances is not available. The grouping of symptoms, however, and the character and development of the physical signs leave little doubt as to the nature of the case—blocking in the first instance of one of the branches of the pulmonary artery in the right lung with subsequent extension of the thrombus to other branches, pulmonary apoplexy, and death from cardiac failure. The chief interest of the case lies in the occurrence of this well-known series of events in a young girl who was apparently in perfect health. A diligent inquiry into the cause of the accident has been entirely negative in its results, and we have had to fall back on the hypothesis that the seeds of the mischief had been sown during the severe illness above referred to, possibly in the form of adherent thrombi in the right cavities of the heart, one of which became detached on June 16th.

Chandos-street, W.

NOTE ON THE PICRIC ACID TEST FOR SUGAR.

BY MARK McDONALD, M.B. DUB.

WHILE carrying out some work on the urine some time since I came across certain reactions with the picric acid reduction test with which it is not generally credited. The importance which this test has acquired in the estimation, both qualitatively and quantitatively, of sugar in urine is sufficient excuse for bringing forward any points bearing on the subject.

When to a drachm of urine there are added a drachm of a saturated solution of picric acid, half a drachm of liquor potassæ, and one and a half drachms of water (as recommended by Sir George Johnson in the quantitative estimation of sugar), an orange-red colour is produced in the cold, due to the kreatinin present in the urine reducing the yellow potassium picrate to red picramate. On heating, this colour becomes more intense. Should the urine contain sugar in any quantity the effect of its presence will not be observed until the temperature reaches nearly 100° C., at which point the colouration is evidently much intensified. If, however, before heating the mixture it be largely diluted—the addition of two ounces of water produces the effect most typically as a rule—the liquid is seen to gradually darken as it is heated, until it boils. Should the urine be normal it will be observed after a few seconds' boiling that the colouration has disappeared, and prolonged boiling does not bring it back; but if the liquid be cooled the colour gradually reappears, and this reaction may be repeated with the same solution any number of times. Should the urine contain sugar in any quantity the solution as before gradually darkens as heat is applied until it boils, when the colour (due to kreatinin) disappears, but if the boiling be prolonged in this case the solution again becomes coloured. This paradoxical reaction depends on the weakness of the solution in potassium picrate. Solutions of the latter when very weak are only with great difficulty partially reduced. The picramate produced by the action of kreatinin in the cold is on boiling reoxidised to picrate; sugar, on the other hand, reduces the weak picrate solutions only on prolonged boiling. A solution of pure urinary kreatinin (prepared by Mr. S. Johnson's method) acts in a manner similar to a normal urine, more liquor potassæ being, of course, required, as Sir George Johnson pointed out. A dextrose solution on similar treatment caused reduction of the picrate only on very prolonged boiling.

It appears, then, that under certain conditions potassium picramate, when boiled in the presence of the substances by whose oxidation it has been produced from picrate, undergoes reoxidation at the expense of these oxidised bodies. The conditions necessary are weakness of the picrate solution and capability of the oxidised bodies to easily undergo reduction. The latter condition is met with in the case of kreatinin. Other substances, as for example the alkaline sulphides, though they reduce in the cold, nevertheless do not reoxidise the picramate on boiling, as the products of their oxidation are very stable bodies. Dilution of the kreatinin solution also assists the reaction. Corresponding results are obtained if, instead of diluting the solutions before boiling, they are first boiled at the usual strength and then diluted with two ounces of water. In the case of normal urines and kreatinin solutions boiling removes the colour, while with sugar and alkaline sulphides no diminution takes place however prolonged the boiling may be. It is noteworthy in all these cases that when heat is applied after dilution the liquid assumes a distinctly darker colour before the boiling point is reached, showing that in the process of dilution and cooling some reoxidation of the picramate had taken place.

If the behaviour of normal urines and kreatinin solutions, on the one hand, and saccharine urines and dextrose solutions, on the other hand, be compared, their reducing power being equal, it is found that after prolonged boiling of the diluted solutions those which contain dextrose have a distinctly darker colour. The intensity of this final colour is proportional, too, to the quantity of dextrose present. It is possible by means of the different actions of kreatinin and sugar to determine whether the reducing effect of a urine is in part due to sugar. This can usually be effected by heating the diluted solution to nearly the boiling point in a long test-tube of small diameter, and then boiling the upper half of the liquid. The colour due to kreatinin disappears, and on boiling for a minute or two the upper part of the solution again darkens if sugar is present. It is important to remember that if the diluted liquid contains less than 1 part of dextrose in 10,000 no sugar reaction takes place, since, as Sir George Johnson noticed, its effect on alkaline picrate vanishes with higher degrees of dilution. This disturbance may be obviated by adding less water, or a dilute solution of potassium picrate may be prepared by mixing a drachm of saturated picric acid solution with half a drachm of liquor potassæ and adding eight and a half drachms of water. To one drachm of this solution one drachm of a twice or four times diluted and neutralised urine is added and the mixture treated as usual. In some cases it is necessary to compare the final colouration with that given by a kreatinin solution of equal reducing power.

Though I have occasionally during the last few months found this reaction of picric acid useful in deciding a diagnosis of glycosuria, I bring it forward less as a practical test than as a warning against a possible disturbance of the usual test for sugar.

Waterloo, Liverpool.

THE DISCOVERY OF A BULLET LOST IN THE WRIST BY MEANS OF THE ROENTGEN RAYS.

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AND
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A BOY aged about twelve years was brought to me by Dr. Simpson of Waterloo, Liverpool, having shot himself in the left hand just above the deep palmar arch. The wound was enlarged, but the bullet could not be found, and it was thought injudicious to prolong the search in view of the important structures in the vicinity unless one possessed a clue to its position. Professor Lodge kindly consented to take a photograph and the position of the bullet was very clearly outlined. It lies against the base of the third metacarpal bone over its articulation with the os magnum. This

is, I think, the first photograph taken of a bullet embedded in a wrist—in this case considerably thickened as a result of inflammation. It will now be quite easy to extract it but it is thought better to await subsidence of inflammatory action. The photograph was taken in the presence of Mr. Houlgrave, who succeeded Dr. Simpson in the treatment of the case. Arrangements are being competed for fitting up a department for the employment of Roentgen's rays at the Royal Southern Hospital.

Note by Professor OLIVER LODGE.—The patient was brought to my laboratory by Mr. Robert Jones, with a pellet of lead lost in his left hand or forearm. Two

Roentgen radiograph of the left wrist of a lad aged twelve years, showing a small bullet which had been lost in it. The bullet is located between the base of the middle metacarpal bone and the os magnum. Taken by Professor Oliver Lodge, F.R.S., after two hours' exposure to a well exhausted home-made vacuum tube excited by a small ordinary coil. The sensitive plate was an Edwards's isochromatic, nine inches distant from the vacuum tube, screened from light by sheet aluminium.

preliminary short exposures to Roentgen rays indicated that the metal was not in a fleshy part readily penetrable by those rays, but was probably embedded among the bones of the wrist. The difficulty consisted in the opacity of those bones. I therefore took a tube with large electrodes made and exhausted by my assistant, Mr. E. E. Robinson, containing potash, so that its vacuum could be adjusted to the best value, and arranged a magnet to concentrate the inside cathode-rays on a definite part of the glass, which phosphoresces and acts as the source of the rays, the rays spreading from each point of the glass in all directions. The boy was comfortably seated at a table with his palm down on an aluminium-protected Edwards' isochromatic half-plate, nine inches vertically below the vacuum tube, and rather more than two hours' exposure was given. The coil used was an ordinary Ruhmkorff, giving about two inches spark at most, and it was excited by five storage cells. The vacuum was such that a one-inch spark in air was usually preferred to the tube. The result was to bring out the wrist-bones clearly and to show the position of the pellet.

Liverpool.

LATENCY IN SYPHILIS.

By ARTHUR H. WARD, F.R.C.S. ENG.,

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IN the admirable paper read by Mr. Ernest Lane before the Royal Medical and Chirurgical Society on Dec. 10th, 1895, many cases were brought forward in proof of the fact of latency in syphilis; but neither in the paper nor in the discussion which followed was much said as to the causation of that latency which all admitted. I believe that some reasons may be brought forward to account for both the apparent and real latency of syphilis. By apparent latency I mean a period during which there are no visible lesions although the microbes are "doing their work," as Mr. Hutchinson put it, more or less actively. Real latency, however, I take to mean a period during which the microbes are absolutely inactive. In a former paper[1] I ventured to state a working hypothesis to account for the causation of syphilis and now state it thus: (1) Syphilis is associated with the growth of a microbe in the organism; (2) this microbe produces a toxine, which is the active cause of the phenomena of syphilis; and (3) this toxine when entering the human body in small and slowly increasing quantities establishes immunity. It would seem to be hardly necessary at the present time to adduce arguments in favour of the existence of such a microbe and consequent active toxine, since the microbe is generally admitted, while the activity of so many other microbes has been shown to be due to the formation of toxines. However, a somewhat striking evidence of its presence is furnished by the experiments of Straus and Tessier, who found that strong reactions occurred in cases of secondary syphilis when tuberculin injections were made; and that in a case of rupia an inflammatory areola formed round the lesions "identical with that occurring in cases of lupus" when injected.[2] It will be admitted that reaction following tuberculin injection certainly indicates the presence of the tubercle bacillus and its toxine, consequently a similar reaction in a case of syphilis indicates the presence of an analogous microbe and toxine in that disease.

The incubation period of syphilis is one of apparent latency. I think it is due to the circumstance that the microbe is a slow-growing one, as the course of the disease indicates, and also to the fact that only a few microbes can possibly be implanted at the moment of infection. Consequently these take time to grow into a colony large enough to produce an appreciable amount of toxine. Induration, the result of the chemiotaxic action of the toxine, can, therefore, not occur at once; but when a growth of three weeks or so has taken place toxine enough to attract round cells into the colony can well be formed. These cells when they have accumulated sufficiently distend the inter-cellular spaces and cause the indurated papule, which grows steadily with the peripheral growth of the colony and generally breaks down in the centre forming the indurated sore. It is to be noted that primary tuberculous inoculations also produce indurated lesions. The next period of apparent latency in the course of syphilis is the so-called second incubation period between the formation of the primary sore and the outbreak of secondaries. This period, I think, must have been in Mr. Hutchinson's mind when he spoke of microbic activity being

[1] THE LANCET, Sept. 10th, 1892. [2] Medical Week, 1893, p. 399.

indicated by the thermometer and the presence of other symptoms while no lesions were apparent. It is impossible to believe that the primary colony can alone form toxine enough to cause the rise of temperature, anæmia, leukæmia, and bone pains seen during this period. On the contrary, I think that during the whole of this period secondary foci are continually being started by the implantation of microbes shed off from the primary focus, this being shown by the fact that when secondaries do appear the rash is polymorphous, showing lesions of varying size and acuteness. It is probable that each secondary focus starts from a single microbe which has been carried in the blood-stream and stranded in a capillary vessel. If all foci start practically equal it follows that the larger the focus and corresponding lesion the older it is, and that consequently these foci are in process of formation throughout this period of latency. If this be so, why do not the older foci develop lesions first? Why do large and small stand revealed at the same time as a polymorphous eruption? I suggest that the explanation is this. The toxine formed in these foci is the irritant which causes the lesions to appear. As long as it can diffuse freely into the blood-stream no irritation is apparent. When, however, the toxine in circulation reaches a certain degree of concentration further diffusion of toxine from the foci will be impeded, consequently the irritant will be kept hanging about the foci, causing degrees of irritation proportionate to the size of each focus, large and small alike, and the consequent lesions will be equally large or small.

The period which corresponds to the above in congenital syphilis, when the child inherits from the father, extends from the time of conception to two or three weeks after birth. In such a case the child is infected from the first, but develops well, and is born apparently healthy, the reason being that during intra-uterine life the toxine can diffuse freely into the mother's circulation (incidentally rendering her immune and so explaining Colles' law). After birth, however, the toxine will begin to accumulate and will soon, as in the adult, render further diffusion difficult, and consequently will establish an outbreak of lesions, together with general toxæmic symptoms. There is, of course, no primary incubation in such a child, as the microbes implanted on the uterine mucosa will grow into the ovum when it is quite small, and the infection be generalised from the first. The fact of the immunity conferred on the mother can be accounted for on the same lines as that produced in the horse in the preparation of diphtheria antitoxin. It seems quite fair to infer the formation of antitoxin in the one case as in the other, and a similar development of antitoxin will, I suggest, be at the bottom of the subsequent periods of latency seen in secondary syphilis. I suggest that what may well happen is something like this: the toxine tide has risen in the patient to the point of establishing secondaries; at the same time an antitoxin tide will also develop, and the phagocytes will consequently become tolerant and fall upon the microbes in the foci. These will be encapsuled, and either arrested or reduced to the spore state or destroyed. Consequently the production of toxine will largely cease, that circulating will be eliminated, the lesions will fade away, and another period of apparent latency set in. The antitoxin tide will also gradually fall, and its protecting power gradually cease, as in the immunisation of the horse. If the microbes have all been destroyed the disease will be at an end; but except in the most resistant individuals that consummation does not take place. Sooner or later the arrested microbes start growing again, the toxine tide again rises, and a further development of lesions follows; these die down in time and another period of quiescence supervenes. At each succeeding outbreak the lesions tend to become more localised till, perhaps, the palms of the hands alone are the seat of manifestations. In less favourable cases, when the individual is susceptible by nature or in any way debilitated, things are different. The periods of latency are much shorter and may be altogether suppressed. The phagocytes do not attain the power of arresting the microbic growth, outbreak follows outbreak, profound anæmia sets in, and the patient finds an early grave. An intermediate course may be imagined, however, in which a certain degree of toleration is acquired which enables the cells to seize on the microbes and reduce them to spores, and to keep them in that condition. This is the only way in which I can account for the suspension of activity for a period of, for instance, forty years. I doubt if an actual living microbe could be suspended so long and yet preserve its vitality, but no doubt its spores, which would rest in the cells like inert particles of pigment might do so. Such a condition I take to be one of real latency. As long as a living microbe exists I imagine that toxine must be formed, but of course spores would be inactive in that respect. Since gummata very frequently depend on some traumatism for their establishment the spores must be scattered throughout the organism, just waiting for a local depression of vitality to burst into growth. Once having done so toxine will again be formed, chemiotaxis again will occur, hosts of round cells will be attracted into the focus, and a gumma will result; or, in a parenchymatous organ, an infiltration will follow the distribution of the fixed fibrous tissue cells. In consequence of the immense overcrowding the gumma will probably disintegrate, while the infiltration with better blood-supply will organise. Thus I think the varying latencies of this mysterious disease may be explained. The microbes may be destroyed and the disease ended, they may cause repeated outbreaks with intervals of apparent latency, they may be reduced to spores and the disease rendered really latent, or they may be allowed to flourish and kill the patient.

Dr. Parkes Weber in an interesting paper[3] associates lardaceous disease in syphilis with chronic toxine poisoning, and describes a zone of lardaceous change surrounding gummata. He also speaks of tabes and such profound nervous degenerations as being due to the same cause and not to gummatous infiltration. I have no doubt but that he is correct. I have already touched on the early latency of congenital syphilis. The further latency between the first year and the onset of tertiary symptoms I believe to be explainable on similar lines to the corresponding adult period. It is to be remembered that the child at birth has already had the disease for nine months. The occurrence of keratitis and internal ear disease almost special to congenital syphilis can, perhaps, be thus accounted for. Since the microbes invade the ovum from the earliest stage they may well permeate the embryonic tissues more thoroughly than in the adult. Those tissues, ultimately to become extravascular and to undergo little developmental change, may thus become the resting place of spores, which here only will escape the chances of destruction which the processes of growth and development may bring; consequently the cornea, or the labyrinth alone, may suffer from syphilitic infiltration, the rest of the organism being free from the infection.

Hertford-street, W.

Clinical Notes:

MEDICAL, SURGICAL, OBSTETRICAL, AND THERAPEUTICAL.

CEREBRAL MENINGITIS FOLLOWING INFLUENZA

BY DAVID LIVINGSTONE DAVIES, M.R.C.S. ENG., L.R.C.P. LOND.,

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THE following case presented such unusual symptoms that I think it worthy of recording; and I should be glad also to learn if anything similar has been observed in the practice of others during the last influenza epidemic. I was called on March 12th, 1895, to see a young girl aged fourteen years. Her friends informed me that she had been ailing for some days with influenza. She had been taken ill whilst at school with rigors, pain in the head, and general pains in the back and limbs. When seen by me she still complained of these pains; her temperature was 103·4° F., the pulse was 114, the tongue was furred, the bowels were constipated, she had lost her appetite, and had been vomiting that day. After taking a mixture containing bicarbonate of potassium and liquor ammoniæ acetatis she improved, and by the next day the pains were much better, the temperature fell to 101°, and the pulse to 99. During the succeeding days she was apparently recovering, her tongue became clean, her appetite returned, and she said she felt hungry. The temperature,

[3] American Journal of Medical Science, November, 1895.

however, remained stationary at 101°, in spite of the antipyretics, &c., as detailed below. She remained in this condition until the 21st, when she began to show symptoms of some nervous disturbance. She became dull and apathetic and had a gloomy, melancholy expression; the pupils were widely dilated, she did not seem to comprehend what was said to her, and it was difficult to elicit any answer to questions put to her. At times she sighed and moaned loudly, and she took her food in a ravenous manner. She recognised her relatives and conversed with them at intervals. I examined the eyes with the ophthalmoscope, but there were no signs of optic neuritis. She had no intolerance of light. She remained in this condition until April 25th, when Dr. E. Roberts of Penygroes was called in consultation. He agreed with me that there were evidently symptoms of cerebral mischief the nature and prognosis of which were doubtful. During the evening of the same day she began to toss her limbs about, the movements being quite typically choreic. One symptom in particular appeared to me very interesting and curious—e.g., that if a lighted candle was brought into the room she would immediately attempt to get possession of it, and she had to be held in bed to prevent her doing so. Unfortunately a sudden change for the worse set in about two o'clock on the morning of the 26th, when she was seized with tonic spasms which affected most of the muscles of the body, but more so on the left side, the sterno-mastoid muscles in particular standing out prominently. She then became comatose, and the spasms occurred more and more frequently until her death, which occurred at two o'clock in the afternoon, or just twelve hours from the onset of the tonic spasms.

Remarks.—The usual symptoms of meningitis were conspicuous by their absence and the symptoms during the greater part of her illness were very indefinite. There was no vomiting after March 12th, when I first saw her, she did not complain of any particular pain, she had no strabismus or paresis, and her temperature never rose above 102° after March 12th. I cannot offer any opinion as to how the meningitis was caused, as she had no hyperpyrexia, neither was there any evidence of ear mischief which might cause it. About three hours before death she discharged about an ounce of sanious pus from both nostrils, the source of which I was unable to ascertain as no necropsy was allowed. I have no doubt in my mind that when I first saw her she was suffering from influenza, and several children at the same school were laid up with it at the same time. Treatment, briefly, consisted in giving liquid nourishment and stimulants at regular intervals of an hour. Bicarbonate of potassium, bromide of potassium, liquor ammoniæ acetatis, salicylate of soda, quinine, aconite, and antipyrin, with cold sponging and counter-irritation to the spine during the last stage, were all tried, but with no effect.

Criccieth.

MENINGITIS AS A SEQUEL TO "SWALLOWING" A NEEDLE.

BY CHARLES J. COOKE, M.D., M.CH., R.U.I.,
MEDICAL OFFICER TO THE PLYMOUTH WORKHOUSE.

ON Feb. 3rd last I was called to see a girl aged eight years who was said to have swallowed a needle four days previously. She was in great distress, crying out when moved and holding her head strongly flexed towards the left side. Her temperature was 102° F.; the tongue was furred, and the skin was hot and dry. Failing to detect any foreign body I sent her to the local hospital, where she was examined, but without result. She was sent home, and on the following day I again examined her carefully, but failed to find anything, and from that time until her death, on Feb. 9th, the case was treated as one of meningitis, which it undoubtedly was. At the necropsy a careful search was made for the needle, as I felt sure that the illness was not merely a coincidence, and on passing my finger along the pharynx I felt a hard substance behind it, which proved to be an ordinary sewing needle one inch and a half in length. It was somewhat firmly fixed, the "eye" end was embedded in or slightly projecting through the posterior wall of the pharynx at the level of the floor of the nasal cavity, and the point was directed upwards and somewhat backwards behind the pharynx. Unfortunately it became dislodged during the dissection, so that I was unable accurately to discover its situation, but it must have been in very close proximity to the base of the skull and may have penetrated the sheath of one of the nerves. The child vomited several times after the accident, and this may account for the extraordinary situation in which the needle was found.

Plymouth.

CASE OF CALCULUS FORMING ROUND SILK SUTURE USED TO CLOSE WOUND IN THE BLADDER AFTER SUPRAPUBIC LITHOTOMY.

BY W. H. BROWN, F.R.C.S. IREL.,
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A MAN aged twenty-two was admitted under my care into the Leeds General Infirmary suffering from retention of urine. Ten months previously I operated upon him for vesical calculus, removing the stone by the suprapubic operation and afterwards closing the bladder by a continuous silk suture. The case did well, union took place by first intention, and he left the infirmary quite relieved from all symptoms. On examining for the cause of retention I found a calculus impacted in the prostatic portion of the urethra, and it was necessary to perform perineal section for its removal. The stone was about an inch and a half in length and somewhat cylindrical. On making a transverse section of the calculus a piece of silk suture, apparently part of the continuous suture used ten months before, was found forming the centre and nucleus of the calculus, the silk evidently having passed entirely through the mucous membrane of the bladder into its cavity.

I think it right to publish this result as evidence of a possible disadvantage of using silk as a means of closing the bladder in such cases.

Leeds.

A Mirror OF HOSPITAL PRACTICE, BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Proœmium.

LONDON HOSPITAL.

FIVE CASES OF RADICAL CURE OF FEMORAL HERNIA; REMARKS.

(Under the care of Mr. C. W. MANSELL MOULLIN.)

THIS series of cases of operation for the radical cure of femoral hernia will again draw attention to a method of operating which, in the hands of Mr. Moullin and others, has given very satisfactory results. Mr. Moullin refers in his remarks to other methods which have been employed for this purpose. We would remind our readers also that some surgeons find simple ligature of the neck with excision of the sac sufficient in the less severe cases, whilst others use some form of suture such as that suggested by the late Mr. John Ward, with the object of diminishing the size of the canal. We endorse fully what is said in the remarks on the case as to the advisability of operating for irreducible hernia in this situation. A patient with such a hernia, although it may be small, is always in great danger, which is not lessened by the application of a hollow pad truss. It is much better that radical cure should be performed when it can be done quietly and under the best conditions, rather than when the patient is very ill and possibly exhausted as the result of vomiting and want of food.

CASE 1.—A woman twenty-eight years of age was admitted into the hospital in September, 1893, suffering from double femoral hernia. The one on the right side had existed for ten years and had been irreducible for eight years. That on the left had only been noticed for a twelvemonth. For some years the patient had worn a truss (of late a double one) with relief; but in spite of this the right hernia continued to increase in size, little by little, and there was such a feeling of weakness when she tried to lift anything that she was advised to come to the hospital. The patient was

prepared in the usual way and a radical operation, as follows, performed upon the two sides. The sac was exposed through the ordinary incision, detached from its surroundings above as well as below the crural ring, and laid open. The omentum it contained was partly reduced and partly ligatured and cut away, the stump being returned. The sac was then drawn down as far as possible and a silk ligature tied around the neck. One end of this was cut off; the other was threaded through the sac from side to side after Macewen's plan and passed up by means of a needle along the crural canal and through the anterior abdominal wall, so that when pulled upon from above it drew the sac into a pad and then carried the pad up through the crural ring into the subperitoneal space immediately over the ring. The pectineus muscle and part of the adductor longus were then exposed, and a triangular flap, with its apex downwards, reflected upwards from the two. This is done most easily by separating with the finger the fibres on the inner side of the thigh in the direction of their length, carrying the finger outwards beneath the muscle so as to lift it up and then dividing it near its attachment to the femur. The size of the flap must be guided by that of the crural opening. A double ligature was then passed through the flap at a little distance from the apex, and the flap partly pulled from above (in the same manner as the sac) and partly pushed from below into the crural canal until the ring was firmly plugged. Two silk sutures were passed from before backwards through the periosteum covering the pectineal surface of the pubes behind and Poupart's ligament in front and traversing the flap so as to hold it in its place, and the operation was completed in the usual way. Both wounds healed by the first intention; the temperature never rose above 100° F., and the patient was allowed to get up as soon as the contraction of the scars showed that the lymph was sufficiently organised. Two years later the cicatrices were sunken well below the level of the surrounding skin, the canal was occupied by a hard mass, and there was no sign of any protrusion.

CASE 2.—The patient, a woman thirty-six years of age, had noticed a femoral hernia (left) for four months. An operation similar to that in Case 1 was performed on June 21st, 1893. The highest temperature was 99° F., and the wound healed by first intention. In January, 1896, there was no sign of any protrusion and the patient was strong and well.

CASE 3.—The patient, a woman fifty-two years of age, had noticed a right femoral hernia for three years and a half. The patient had never worn a truss; the rupture had recently increased greatly in size. Operation was performed on Oct. 2nd, 1893. The highest temperature was 99° F. There was no suppuration. In January, 1896, there was no sign of any yielding.

CASE 4.—The patient was a woman thirty-two years of age. A right femoral hernia made its appearance eighteen months before admission, during pregnancy; it had been gradually getting larger. Operation was performed on Oct. 31st, 1893, when a large mass of omentum was removed. There was slight suppuration on the fourth day; the highest temperature was 101° F. The wound was sound and there was no sign of any protrusion six months later. The patient cannot be traced.

CASE 5.—The patient, a woman forty-three years of age, had noticed a reducible right femoral hernia for six months. Operation was performed on Aug. 15th, 1894. The wound healed at the end of a week. In January, 1896, there was no yielding of any kind.

Remarks by Mr. MANSELL MOULLIN.—Since the above I have operated upon eight other patients, with, I believe, an equal degree of success, although in one or two the wounds have become septic and sinuses have been left for a time; but as less than eighteen months have elapsed I do not consider them of any value as regards the question of a radical cure. The radical cure of femoral hernia has not received so much attention as that of inguinal; yet the number of patients, particularly of women in the prime of life, who suffer from it is, beyond all doubt, very large. Many of them, it is true, are provided with trusses, and by dint of great care and no small expense manage to secure a certain degree of safety for themselves. But many others either wear no truss at all or, what is worse still, wear one that does not fit; and in these, sooner or later, the hernia is certain to become irreducible and a source of perpetual danger. Whenever there is an irreducible epiplocele there is constant risk of a fresh portion or of a knuckle of intestine being guided into the opening by the band of omentum that reaches from it to the stomach; and if this occurs there is the greatest risk of strangulation. In a very large proportion of the cases of strangulated femoral hernia that are operated upon there is an irreducible epiplocele of many months' or years' duration in front and a recently descended knuckle of intestine behind. The operation I have described is a combination of several others and does not pretend to be original. The treatment of the sac is borrowed from Macewen.[1] Salzer[2] described the method of plugging the canal with the fascia covering the pectineus muscle, which, however, is very rarely sufficient. Watson Cheyne[3] advocated the use of the pectineus muscle in the same way, a method that had been adopted four years before by Stonham.[4] The sutures, which by themselves are entirely useless in such cases, date from much longer back. The result of the combination so far has been entirely satisfactory. The only difficulty—and it is a real one owing to the position of the wound—is to keep the part aseptic. The muscular flap undoubtedly atrophies and becomes converted into fibrous tissue, but as the change is in all probability complete before many months have passed, and as none of the cases that were operated upon have shown any sign of yielding, I think there is a fair prospect of the cure being what its name implies, radical. There is no other method, so far as I know, for femoral hernia of which the same can be said.

BRISTOL GENERAL HOSPITAL.

REMOVAL OF PAPILLOMA OF THE BLADDER BY SUPRAPUBIC CYSTOTOMY; SEVERE SECONDARY HÆMORRHAGE ON THE THIRD DAY; RECOVERY.

(Under the care of Mr. CHARLES A. MORTON.)

THE following account of operation for pedunculated papilloma of the bladder is very instructive. The growth was found in the most common situation, near the orifice of the right ureter, and presented no difficulty in removal. The cut pedicle does not appear to have bled much at the time, but secondary hæmorrhage to the extent met with is hardly known. It is probable that the use of the scissors to separate the growth rather than the employment of an instrument more likely to crush the parts during separation is chiefly responsible for this serious complication. We refer our readers to the remarks by Mr. Morton.

A man aged thirty-nine years was admitted to the Bristol General Hospital on Nov. 27th, 1895, with the following history. Eleven years previously, after an unusual amount of exercise, he had an attack of hæmaturia lasting one day, the blood being intimately mixed with the urine during the whole time the act of micturition lasted. During the next seven and a half years there had been only two attacks of hæmaturia, each lasting a day. Three and a half years before admission, for a month the urine had been blood-stained every time it was passed, and since then the hæmaturia had recurred every few weeks or months, the longest interval of freedom from hæmaturia being eight months, and this preceded the last attack, which began two months before admission. Sometimes the urine was mixed with blood from the beginning of micturition, but lately at times it had been normal at first, the stream had then suddenly stopped, with severe pain in the perineum, at the end of the penis, and over the sacrum, and then when it started again the urine was mixed with blood. On several occasions clots had been passed, and what had been considered by medical men to be pieces of tissue. Pain came on during micturition at times without involuntary stoppage, and then was sometimes so severe that he had to cease micturating in order to obtain relief. Rest in bed for a few days gave him great relief. When moving about he had to pass urine every quarter of an hour. For some time before admission he had been unable to walk at his ordinary pace, as the exertion caused pain in the perineum. He had been sounded for stone by three medical men. He brought a bottle of his urine with him; it was free from blood and acid, with a considerable deposit of pus; the specific gravity was 1020. The urine passed after admission was dark red with blood. On the 29th he was sounded, no stone being detected. The urine after sounding was only very slightly blood-stained. All the urine passed was strained through cloth, but no fragments of

[1] Brit. Med. Jour., Dec. 10th, 1887.
[2] Centralblatt für Chirurgie, Aug. 20th, 1892.
[3] THE LANCET, Nov. 5th, 1892.
[4] THE LANCET, Nov. 19th, 1892.

growth were discovered. There was no induration of the base of the bladder as felt from the rectum, and no tenderness over the pubes or in the loins was present. On Dec. 2nd suprapubic cystotomy was performed in the usual way. The rectal bag was employed. The muscular coat of the bladder was found to be considerably hypertrophied. A raspberry-like growth was at once discovered attached by a firm pedicle either to the orifice of the right ureter or close to it at that end of the inter-ureteral ridge. The attachment of the pedicle to the bladder was divided with curved scissors, and all bleeding at once stopped by somewhat prolonged pressure of a sponge in a long handle. The growth was a typical soft papilloma the size of the last joint of the thumb, with a rather firm and long pedicle, which would allow of its passage into the neck of the bladder. The incision in the bladder was closed with catgut sutures around a drainage-tube, to the upper end of which a glass tube bent at a right angle was fixed, and from the other end of the glass tube a long indiarubber tube conveyed the urine into a vessel by the bedside. The recti were sutured with catgut and the skin with fishing-gut around the tube. When the patient left the operating-table the urine was only very faintly blood-stained. Cyanide gauze was packed around the tube over the sutured incision. On the 3rd the patient was very comfortable, and nearly all the urine came through the tube and hardly any leaked from the wound. The urine was quite free from blood. His temperature rose in the evening to 101° F. On the morning of the 4th he was comfortable, and urine free from blood drained away through the tube; but at 1 P.M. he felt a desire to micturate; nothing came but a few drops of pure blood, and it was noticed that urine had ceased to flow through the tube, and could not be removed from it by suction. A firm swelling had formed in the hypogastrium, extending upwards half-way to the umbilicus. It was evident that hæmorrhage had suddenly occurred and the bladder was full of clot. Nothing came through a No. 10 catheter, until an aspirator was attached, and then with much difficulty a few ounces of pure blood and some small clots were removed. This relieved him and seemed to reduce the size of the hypogastric swelling. Hoping that the hæmorrhage had ceased, an attempt was then made to break up and remove the clot by moving about a No. 15 Bigelow's catheter in the bladder, and then attaching the evacuator so as to suck out the broken-up clot, but it was unsuccessful. As the urine before the hæmorrhage had been draining away satisfactorily through the tube, clear of the patient, it seemed unwise to open up the bladder unless other measures failed, especially as it necessitated the re-administration of an anæsthetic. The bladder was then washed out with very hot boracic lotion with Bigelow's catheter and evacuator and this quite stopped the hæmorrhage, as shown by the lotion flowing from the suprapubic tube only very slightly bloodstained. But the hypogastric swelling continued, and he began to complain of pain spreading from the hypogastrium up the right iliac region towards the loin. The hæmorrhage, however, recurred, a little blood began to flow from the penis, and the urgent desire to micturate was again felt. The injection of very hot boracic lotion by the same method again stopped it, but not for long, and at last, as he was looking pale and seemed weak, it became necessary to open up the bladder and deal with the bleeding point. Up to this time the blood passed amounted to only the three or four ounces removed by the aspirator, a few small clots, and the colouring of the boracic lotion. On dividing the sutures several ounces (by measure) of black clot rapidly protruded, evidently under great tension. They had been lying between the bladder and the pubes and abdominal wall around the drainage tube, and had formed the hypogastric swelling. The bladder contained blood-stained fluid, but very few clots. Nearly all the stitches in the bladder had given way. On passing the finger into the bladder the hæmorrhage recurred, but ceased with the use of very hot boracic lotion. The bleeding point, where the pedicle of the growth had been cut through, was drawn towards the opening in the bladder with long catch forceps, but it was impossible to get a ligature around it, and some strong solution of perchloride of iron had to be applied on a sponge in a holder, pressure being made at the same time. The bladder was well-washed out with boracic lotion, the wound left open and well dusted with iodoform, and the urine caught in a carbolised sponge, frequently changed. This sponge was retained in position by a broad piece of thin gauze used as a binder, which allowed any hæmorrhage into the sponge to be visible at once to the nurse in charge. Later in the evening it was found necessary to pass a drainage-tube into the bladder as the recti came so nearly together, when the wound was examined after the patient had recovered from the anæsthetic. There was no further bleeding. On the 12th Mr. Cathcart's admirable suction apparatus[1] was started in action, and by its means all the urine was withdrawn from the bladder through the supra-pubic tube (which only loosely lay in the wound and did not reach into the bladder) and the patient kept dry. On the 22nd a few drachms of urine were passed by the urethra for the first time, and by Jan. 1st, 1896, all the urine came by the urethra, the tube having been removed from the supra-pubic sinus on Dec. 31st. The urine contained only a very light flocculent cloud on standing. The patient was discharged when the wound healed, and free from pain and cystitis, on Jan. 20th. There had been no blood in the urine after the time of the secondary hæmorrhage. The temperature was only raised to 101° on Dec. 3rd and 4th, after which it was normal.

Remarks by Mr. MORTON.—The diagnosis of papilloma of the bladder was easily made from the history, though it was thought desirable to exclude stone by sounding. The number of years over which the history of intermittent hæmaturia extended, at first at very long intervals, then becoming more frequent and lasting, and occurring at times only during the end of the act of micturition, pointed almost conclusively to an innocent growth—almost certainly innocent, because of the great length of time which elapsed between the first hæmorrhage and the later development of the symptoms. An interesting feature in the case was the sudden stoppage, with intense pain, and then return of the flow of urine. This resembled the condition often present in cases of stone, especially in children, when the calculus slips into the neck of the bladder, and doubtless the explanation was the same—the pedunculated growth slipped into the neck of the bladder at times, was tightly gripped and intense pain occurred, and the outflow of urine stopped. Unfortunately, when I first saw the patient there was a considerable deposit of pus in the urine—the case had reached what Mr. Hurry Fenwick calls the third stage, cystitis had set in, and this is unfavourable as a rule for operation. Had it not been so I should certainly have sutured the bladder and drained it by tying in a catheter. As it was I thought it better to drain from the suprapubic wound to relieve the cystitis and the result was very good—the cystitis completely disappeared. In a case of suprapubic lithotomy for an unusually large stone, and in which marked cystitis was present, I sutured the bladder and obtained primary union, no urine escaping above the pubes at all. But I thoroughly drained the space between the sutured bladder and the wound in the abdominal wall with a tube and iodoform gauze packing after partial closure of the incision through the abdominal wall, and I believe the surgeon may always safely suture the bladder, even if cystitis is present, so long as he carefully arranges for such drainage, for then if the sutures give way he is no worse off than if he left the wound in the bladder open from the first, and as I know from the case I have just referred to he may get satisfactory primary union even with the marked cystitis. But the cystitis persisted after the lithotomy in that case, and I am not sure if it would not have been better to have drained the bladder from above the pubes as I did in the case above recorded. The large collection of clots outside the bladder in this case was interesting. There was nothing to indicate that they occupied this position before removal of the stitches, and I thought the hypogastric swelling was the bladder greatly distended with clots. It might be thought that the position of the clots indicated hæmorrhage from a vessel on the exterior of the bladder, but no vessel bled in this position on turning them out, and very slight manipulation of the interior of the bladder started the hæmorrhage from the cut pedicle. No doubt the contraction of the bladder from time to time broke down the sutures and forced the soft clots through the incision into the space in which they were found; and some clots remaining in the bladder were broken up and washed out in the manner described before the bladder was opened. The presence of the clots around the drainage-tube blocked it and thus stopped the flow of fluid from the bladder, even though the bladder itself was almost free from clot. The

[1] Brit. Med. Jour., Oct. 19th, 1895.

question naturally arises, Could the extra-vesical position of the clots be diagnosed? and it is an important one, for the danger of leaving such a collection of clots would be very great. Urine or injected lotion might flow from the bladder, as it did in this case, after a certain area in the bladder had been cleared of clots and yet much clot might remain. This was the condition I thought present. But it is evident from this case that with the persistence of the hypogastric swelling and the possibility of injecting and withdrawing fluid from the bladder such a collection of extra-vesical clots may be strongly suspected. I have used Mr. Cathcart's constant suction apparatus with great advantage in another case—one of suprapubic cystotomy for tuberculous ulceration of the bladder.

Medical Societies.

PATHOLOGICAL SOCIETY OF LONDON.

Non-suppurative Ankylosis of Joints.

AN ordinary meeting of the Pathological Society was held on Feb. 18th, Mr. BUTLIN, President, being in the chair.

A discussion took place on the Pathology of Non-suppurative Ankylosis of Joints. It was opened by Mr. WILLIAM ANDERSON, who said that the pathology of non-suppurative ankylosis was still incomplete and cases were often met with which our present theories of causation were insufficient to explain. Mr. Howard Marsh, in his address read before the British Medical Association in July last, led the way towards a better knowledge by recording a number of examples of the rarer forms of the condition, and it was with the object of reawakening discussion and educing further contributions from both physicians and surgeons that the present paper was read. Ankylosis was defined as a complete or nearly complete annihilation of the movements of a joint due to changes involving either the opposed surfaces of an articulation or the ligamentous and capsular structures investing. No separation was made between fibrous and bony ankylosis because the same injury might induce either condition, and a fibrous union might in time become osseous. As a tentative classification of the non-suppurative form it was proposed to divide the cases into two groups, according to origin: inflammatory and degenerative. *a*. The *inflammatory* form might arise from (1) mechanical injury, either of an accidental nature, such as simple contusion, fracture extending into a joint, &c., or intentional, as in resections and arthrectomies (cases of ankylosis by contusion were quoted); (2) toxic elements conveyed by the blood, as in septicæmia (puerperal, typhoid, scarlatinal, &c.), gonorrhœal rheumatism, gout, "quiet" tuberculosis, and possibly in syphilis; and (3) affections of the nervous system—surgical injury as in case of division of nerves; disease, such as Charcot's, rheumatoid arthritis, peripheral neuritis, and obscure neurosis. *b*. The *degenerative* form was exemplified by cases of (1) ossification of ligaments in rheumatoid arthritis and perhaps in other conditions; (2) forcible and long-continued pressure of one articular surface against another, as in the case of porters who carried heavy weights upon the head, and in extreme cases of lateral curvature; and (3) adaptive changes in ligaments around a joint that had undergone long immobilisation. *c*. A third section must be reserved for obscure cases that could not as yet be classified with certainty. The following case was then read. The patient, a neurotic man aged thirty, had suffered since the age of ten from a series of articular lesions terminating in fibrous or osseous ankylosis. Each attack set in without apparent cause and without constitutional disturbance, and was characterised by moderate pain and swelling of a single joint, followed after a few months by more or less complete fixation of the articulation. In this way the right wrist, the right knee, the right ankle and tarsus, the left elbow, the right elbow, and the right shoulder were successively invaded between the ages of ten and nineteen (inclusive), the ankylosis being osseous in the right knee, the right tarsus, the right shoulder, and apparently in both wrists, and fibrous in the other joints. Since the age of nineteen the attacks had been less frequent and severe, but the first phalangeal joints of both ring fingers and the left little finger had suffered, and within the last fortnight the left shoulder had become tender and painful. No osteophytic formations were apparent in any of the affected joints. In addition to the joint manifestations the patient was the subject of extreme hallux valgus (apparently independent of boot compression), a partial loss of power with stunting of growth of the right middle finger, and a vaso-motor paralysis of the skin of the right leg and foot. The patient was a very neurotic subject, but free from other disease and with a good family history. He had undergone a cuneiform resection of the right knee and a resection of the head of the right metatarsal bone. Various cases were related and preparations shown in illustration of the different headings of classification.

Mr. HOWARD MARSH stated that he had met from time to time with cases in which bony ankylosis had occurred without suppuration, slowly and quietly, and with no signs of active inflammation. These cases included:—1. Tuberculosis. He showed—(*a*) an elbow-joint in which there was complete synostosis between the humerus and the olecranon. The parts were removed by excision of the joint from a girl aged fourteen. There had been no signs of active disease, but the joint had gradually stiffened. Excision was performed by Mr. Walter Roughton of New Barnet, to improve the attitude of the limb. (*b*) The os calcis and astragulus from a case in which Syme's amputation had been performed for tuberculous synovitis of the ankle-joint. No suppuration had occurred, but the two bones were absolutely synostosed. (*c*) The second and third cervical vertebræ firmly ankylosed by bone. No history of the case was known, but Mr. Marsh attributed the ankylosis to tuberculous disease. The bones were perfect in their outlines and were not eroded. He mentioned other cases in which bony ankylosis appeared to have occurred in cases of tuberculous disease where there had been no suppuration. 2. Gonorrhœal rheumatism. He had recently excised a knee-joint, distorted as the result of gonorrhœal rheumatism, and in which he found the femur and tibia firmly synostosed. He believed that bony ankylosis was met with in other septic affections unattended with suppuration, as sometimes after parturition and after acute infective periostitis or osteomyelitis. 3. After mechanical injury. He instanced a case in which firm ankylosis, which appeared to be bony, had occurred after a severe fall upon the symphysis of the jaw. 4. In scoliosis. He showed three specimens, one from the Royal College of Surgeons of England and two from St. Thomas's Hospital. 5. Charcot's disease. Charcot had himself recorded a case of a tabetic foot in which there had been no suppuration. He had found the first and second metatarsal bones ankylosed to the internal and middle cuneiform bones. Mr. Marsh had not himself met with ankylosis in tabes apart from suppuration, but Charcot's case seemed a clear illustration of this result. 6. After nerve injuries. Mr. Bowlby had placed in the museum of St. Bartholomew's Hospital a hand in which, after division of the median nerve, bony ankylosis took place in one of the inter-phalangeal joints. 7. In gout. Of this he showed a clear example. 8. Multiple ankyloses of very obscure origin. He brought forward a case in which a young man aged twenty-two—whose original illness, which had occurred four years previously, was said to have been acute rheumatic fever—had complete bony ankylosis of both hips, both knees, and both ankle-joints. 9. In osteo-arthritis (so-called) of the spine. Here the different vertebræ were absolutely fixed together by bone as the result of ossification of the anterior common and other ligaments passing over the bodies and the ligaments of the neural arches. Mr. Marsh had found on microscopic examination that in all these cases alike ankylosis was effected by the development of true bone. In some of the cases he remarked a distinct irritant was in action—the tubercle bacillus, infective micro-organisms, the materies morbi of gout, or mechanical injury. In some ankylosis followed an abnormal condition of the nervous system, while in a third group—that which included cases of multiple ankylosis—the cause at present seemed to be completely obscure. It was perhaps doubtful whether the cases which he had placed under the title of osteo-arthritis of the spine would on further investigation prove examples of that form of disease which was termed osteo-arthritis in the appendicular skeleton.

Mr. DAVIES-COLLEY referred to a patient who was lately under his care, a boy aged ten with stiffness of the lower jaw. A year previously he had received a kick from a horse,

which had caused great pain. On examination it was found that movement of the jaw laterally and from before backwards had been lost, and this indicated that there was ankylosis of the part of the joint above the inter-articular fibro-cartilage. With regard to the ankylosis which resulted from gonorrhœal rheumatism he had described an acute form, affecting especially the ligaments of the joint and accompanied by redness and œdema over the joint and with extraordinary stiffness; both sexes were equally liable to the trouble. He called attention to a specimen which he had brought from the museum of Guy's Hospital, and which was more directly illustrative of the subject before them. It was exhibited before the society by Dr. Fagge, and published in the twenty-eighth volume of the Transactions. It was one of synostosis of the posterior portions of the dorsal vertebræ and of the heads of the ribs, accompanied by ankylosis of one hip-joint. The patient was a man aged thirty-four and he died from bronchitis. Dr. Fagge pointed out the absence of any signs of osteo-arthritis, but could give no opinion upon the actual pathology of the case. Judging from two cases which had fallen under his own observation and from the reports of certain cases exhibited at the Clinical Society of so-called spondylitis deformans, Mr. Davies-Colley was disposed to attribute this ankylosis to gonorrhœal rheumatism, although no mention was made in the medical report as to the patient having had gonorrhœa or not. He believed that in those patients with ankylosis of the posterior portion of the vertebræ the disease had begun with an acute inflammation of the ligaments which had subsequently become converted into bone. Two such cases had come under his own observation. The first was a man aged thirty-two, whose case he brought before the society eleven years ago. The second was a man of about the same age, who was sent to him as a case of caries of the spine about eighteen months ago. He had the peculiar round, immovable back which characterised this condition, and, like his previous case, he had been for a considerable time exposed to damp and sudden changes of temperature; but at the same time he had suffered from repeated attacks of gonorrhœa. From the tenderness of the back, the small movement of the ribs, and the pain which seemed to him to be referable to pressure upon the nerves as they passed through the inter-vertebral foramina, he came to the conclusion that the ankylosis was in the posterior parts of the vertebræ and not in the bodies. These cases were so rare, and the records of post-mortem examination so scanty, that it was difficult to form any certain deductions from them. His own impression, however, was that they were primarily cases of acute gonorrhœal inflammation attacking the ligaments about the spines, articular, and transverse processes of the vertebræ. He believed also that the young men thus affected would be found to have a gouty or rheumatic family history, and to have been unusually exposed to cold and damp. Another peculiarity of the disease was that having once started it appeared to go on, although the condition which had caused it was no longer in existence.

Dr. J. GRIFFITHS (Cambridge) said that in the spinal column injury was frequently followed by ankylosis extending over two or three vertebræ. He showed a specimen of fracture dislocation in which both the intervertebral discs and the ligamenta subflava were converted into bone. He showed another specimen of ankylosis of the occipital bone to the atlas in which he believed that the ankylosis resulted from injury damaging the arch of the atlas. Another specimen which he believed also to be due to injury showed partial rotation of the atlas with ankylosis to the occipital bone and to the axis by the articular processes. Ankylosis as a result of contusion or injury rarely occurred in the appendicular skeleton. Bony ankylosis of the spine frequently occurred in old age and then the bodies of the vertebræ were found glued together in front and at the sides, but ossification of the anterior common ligament did not as a rule take place. He showed further specimens in which the fifth lumbar and first sacral vertebræ were ankylosed by cancellous bone and there was ossification of the ligamenta subflava, of the articular processes, and of the sacro-iliac synchondrosis. He doubted whether the cause of this was osteo-arthritis, for none of the other changes characteristic of that disease were present. A specimen of ankylosis of four vertebræ in lateral curvature showed a general fusion of the bones, including the discs but excluding the spinous processes. When destructive disease, such as tuberculosis, was present in the spinal column it was common to find that the laminæ and articular processes had become firmly united together. Cases of multiple ankylosis affecting the appendicular skeleton only and running a definite sub-acute course were interesting. He quoted the case of a girl aged twenty-eight, whose illness began with swelling and stiffness of the joints, without redness, going on for weeks, reaching a chronic stage and subsiding, leaving the joints stiff. He showed the bones of three feet in which there were no osteo-arthritic changes, but ossification of the periphery of the joints had occurred; the process was accompanied by a peculiar pitting of the articular surface of the joints. He regarded spondylitis deformans as merely the same disease beginning in the spinal column.

Dr. PASTEUR showed a girl aged sixteen years who was suffering from pseudo-ankylosis of the joints of all four limbs from the elbows and knees downwards. The hip and shoulder-joints were not appreciably affected, but the temporo-maxillary articulations were distinctly involved. There also appeared to be considerable limitation of rotation in the dorsal and lumbar spine, though the movements of the head remained free. Little pain was complained of during rest, but attempts at passive movement had always caused more or less pain. The patient first came under his observation in 1888, three years after the first onset of symptoms. The family and personal histories did not throw any light on the present affection. He did not believe that the process had been of an inflammatory type at any period of the disease. He had on no occasion been able to detect any effusion into the affected joints, or thickening of the articular ends of the bones, or any grating or cracking on passive movement. During the first two years the patient complained of recurring attacks of painful swelling of the hands and feet without general constitutional disturbance, but no attack of this kind had been observed since she came under observation. Stiffening of the joints was first complained of eighteen months after the onset. All the joints in the affected limbs appeared to have been attacked simultaneously and the wrists and ankles had suffered more severely than any of the others. The fixation of the various joints had been steadily progressive from the outset and had kept pace with the remarkable atrophy and condensation of the soft parts of the affected limbs which had taken place. He had satisfied himself that the fixation of the joints was due to the changes in the muscles and structures around the joints and not to primary changes in the joints themselves. From the first arrest of movement in the affected joints was caused by the stretching of the tendons passing over them. It was probable that the ligaments and connective tissue around the joints had become adapted to the altered conditions, and it was likely that they had, in common with other parts, been subjected to the trophic changes observed throughout the limbs. That the resistance to passive movement in the earlier stages of the condition was independent of the will was proved by the persistence of the ankylosis under chloroform anæsthesia. From first to last he had entirely failed to obtain any evidence of alteration of sensibility in the affected limbs. The superficial and tendon reflexes were normal, and, apart from the remarkable clawing of the hands (which was suggestive of interosseal paralysis), there had been nothing to point to a peripheral or spinal lesion of motor nerves or ganglia. The electrical reactions of the affected muscles had always been those of health. Referring to the affection of the temporo-maxillary articulations it was noteworthy that there also the joint affection was associated with some loss of facial expression, due most probably to loss of elasticity in the skin and condensation of subcutaneous tissues analogous to the condition obtaining in the limbs, the arms more particularly. The case was anomalous in so many respects that he felt some diffidence in venturing to give it a name. When the patient was shown before the Clinical Society in 1889 its affinities to symmetrical diffuse scleroderma were noticed by several members, and he confessed that he was still, as he had been then, inclined to place it, temporarily at least, in that category.

Sir GEORGE HUMPHRY said that in his remarks he would confine himself to those forms of non-suppurative ankylosis in which there was ossification of the parts on the exterior of the joint—external ankylosis. In these cases there was an ossification of the ligamentous tissues due to an abnormal excitation of the sub-periosteal bone-corpuscles in them. These normally underwent stimulation in the course of development, and thus produced the processes and ridges seen on the bones, as, for instance, the anterior inter-trochanteric line on the femur or the ridge for the insertion

of the masseter on the lower jaw, or the ridges on the ventral aspect of the scapula. Sometimes these corpuscles might be stimulated abnormally, and thus lead to the production of bony processes between, among, or into the ligamentous tissues connecting bones or in relation with tendons. This ossification of ligament had its normal development in the case of the sacrum and in the normal ankylosis which occurred between the pre-sphenoid, the post-sphenoid, and the spheno-occipital vertebræ. This normal ossification was regulated by developmental laws and rarely went beyond them, but the extension of this condition was liable to affect the whole vertebral column. In lateral and antero-posterior curves the arches and the articular processes would unite, ossification spreading from the bone corpuscles at the edges of the arches through the ligamenta subflava and thus uniting them one with the other. It usually occurred where the fibrous structure was subject to some amount of stretching, thus stimulating the bone corpuscles. He would call the process *ossificatio fibrosa*, and under it he would class all the similar changes occurring in fibrous tissues attached to bone. The process spread along the margin on the articular surface, fusing the bones together; then the articular cartilages, having no function, disappeared and left the layer of cartilage bone which subtended that structure. The cartilage bone then gradually underwent absorption at points, and through these points shot up little bone processes from the subjacent cancellous tissue; these from opposite sides met and coalesced and thus the cartilage bone was removed and its place taken by cancellous tissue. What the cause was that excited the bone corpuscles he was not prepared to say, but he thought that it was more nearly related to a rheumatic affection than to any other. It bore no resemblance to Charcot's disease or to nerve affection; and speaking on that point he ventured to say that the neural tendency was a little too strong upon the pathologist at present, who would scarcely admit to various other tissues their fair share in originating disease.

CLINICAL SOCIETY OF LONDON.

Chronic Cancer.—Splenectomy for Rupture.—Pneumothorax during Typhoid Fever, due to Straining at Stool.

AN ordinary meeting of this society was held on Feb. 14th, Dr. BUZZARD, President, being in the chair.

Mr. T. W. NUNN read the notes of a case of Chronic Cancer of the Breast of more than thirty years' duration. The paper was in continuation of two former papers read before the society in 1872 and 1878 respectively, and recorded in the sixth and eleventh volumes of the Transactions. The patient, a female, was first an out-patient at the Middlesex Hospital in June, 1862, being then thirty-seven years of age and the mother of one child. Menstruation had ceased at the age of thirty years. There were a scirrhous tumour of the right breast and a chain of enlarged glands in the axilla. The breast was removed by Mr. Nunn in the September following. Four years later (1866) pain in the muscles of the arms and in the fingers was complained of, but the pain after a short while passed off. When the patient was examined in 1868 there was no alteration for the worse. In 1878 she was examined in the presence of the clinical class, there being a very limited return of the disease at the upper border of the cicatrix. In 1893, or more than thirty years from the commencement of the tumour, Mr. Nunn saw the patient again, having in the meantime lost sight of her. There was an increase in the cancer deposits, which were in the form of flat vein-marked plaques, and the arm was swollen. Mr. Andrew Clark took charge of the case in the out-patient cancer department of the Middlesex Hospital. The swelling of the arm having subsided, the patient ceased her visits to the hospital. In October, 1895, Mr. Nunn found the patient still living and energetic and doing work as a charwoman. In December it was found that the tissues of the axilla were puckered and shrunken, and the arm somewhat swollen below the elbow, the patient having, however, continued her occupation. Appended to this case was the sequel of Case 2, recorded in 1878, above alluded to. The patient died a year after the date of Mr. Nunn's paper. The necropsy revealed secondary deposits in the lungs and liver. Drawings of the microscopical sections of the breast and secondary deposits made by the late Dr. Lyell were now submitted to the society. As a further illustration of chronic cancer Mr. Nunn referred to a case of which microscopical sections of the recurrent tumour removed by him were exhibited at the Pathological Society of London in 1880, the original tumour having been removed seven years previously by the late Mr. Curling—Dr. Goodhart, the late Mr. Marcus Beck, and Mr. Rickman Godlee all having determined that the case was one of cancer. Mr. Lawson operated on a second recurrence in 1882, and the patient was, or was until lately, still living.—Mr. HOWARD MARSH mentioned the case of a woman now aged seventy-one years on whom he had recently performed a tenth operation for cancer of the breast, and the disease had existed for eighteen years although in its structure there was nothing to indicate that it was likely to pursue this chronic course. It was important to record these cases, which acted as checks to the doctrine that patients suffering from cancer might be regarded as cured if they remained free from the disease for three years. The instances recorded showed that though three years had elapsed since operation, yet the patients might not be finally free from the disease.

Mr. PITTS and Mr. BALLANCE read papers on Splenectomy for Rupture, with three successful cases. Case 1: A boy aged ten years was admitted into St. Thomas's Hospital under the care of Mr. Ballance on Sept. 11th, 1895. He had been ill since the early morning with severe pain in the abdomen, and had been sent to the hospital by Mr. White of Camberwell, who said he had internal hæmorrhage. Five days previously, whilst batting at cricket, the boy had been struck by a "full pitched ball" on the left side. After the injury he had been in much pain, but this had passed off until a few hours before admission, when it recurred. On admission he was collapsed and suffering from severe shock; the surface was blanched, the lips pale, the skin cold and clammy, the pulse small and rapid, and the respiration rapid and diaphragmatic. The abdomen was rigid, tender, and prominent; there was slight bulging of the flanks; the percussion note was dull in both flanks. On change of position the dulness could be made to disappear entirely from the right but not entirely from the left side. The patient rallied slightly and operation was proceeded with. A small incision was made below the umbilicus, and on opening the peritoneum a large quantity of fluid blood gushed out. A rupture of the spleen being suspected, a four-inch incision was immediately made in the upper part of the left linea semilunaris, which exposed a large quantity of clot, some of it dark in colour and some in part decolourised. This was removed and the spleen brought into view, when it was seen that the latter was severely ruptured on its phrenic and renal surfaces, the injuries extending into the hilum and involving the vessels. The pedicle was ligatured and the spleen cut away. All blood and clot were then carefully removed by sponging and the wounds dressed and closed in the usual way. Convalescence was rapid and satisfactory. At the operation it was noticed that a spleniculus was left behind. The blood was carefully examined while the patient was in hospital and it was found that the red corpuscles were diminished in number while the white were considerably in excess. The physiological mean was reached in about six weeks. At the present time the boy was in robust health and had gained weight, but the cervical, axillary, and inguinal lymphatic glands were all obviously enlarged. Case 2: A woman aged forty-five years was admitted to St. Thomas's Hospital, under the care of Mr. Ballance, at 11 P.M. on Sept. 15th, 1895, having been run over by a hansom cab. She was pulseless and blanched, her skin being cold and covered with a clammy sweat. There was some dulness in the left flank, and a little blood was drawn off from the bladder, the urine having been previously voided involuntarily. The temperature was 96° F. and the patient did not rally sufficiently to justify an operation until the following day. In the interval preceding the operation it had been observed that an increasing quantity of fluid was collecting in the abdomen, that there was dulness on both flanks, and that the dulness of the right flank could be made to disappear by change of position, whilst the dulness of the left flank remained constant. An operation precisely similar to that in Case 1 was carried out. The spleen was found to be badly ruptured across the gastric surface, the vessels of the hilum being also torn. The peritoneum over the kidney was uninjured and no urine had

been extravasated into the abdominal cavity. An enormous quantity of blood and clot was removed from the abdomen. The patient left the theatre in a desperate condition, but gradually improved, so that at the end of ten days she was apparently convalescent. Then she began to go downhill and by the eighteenth day her condition was highly critical. She was extremely emaciated and very weak; the complexion was sallow, the face sunken, and the pulse rapid. There was a daily rise of temperature, together with great thirst, drowsiness, severe griping pains in the abdomen, pains in the limbs, and tenderness of the long bones. The red blood corpuscles numbered 3,500,000 and the white cells 20,000 per cubic millimetre. In this emergency the following treatment—which had proved successful in a case of removal of wandering spleen by Mr. Ballance where similar symptoms had occurred—was adopted. The patient was ordered the extract of one sheep's spleen and some raw bone marrow daily. She gradually convalesced from this time, and the treatment was not stopped until she had taken the extract of fifty sheep's spleens and twelve ounces of raw bone marrow. The patient had now regained her normal weight and was in every respect quite well, and though the lymphatic glands could be felt on the left side of the neck and in the right axilla there was no general and obvious enlargement of them such as was to be observed in Cases 1 and 3. Case 3: A man aged thirty-six years was admitted to St. Thomas's Hospital, under the care of Mr. Pitts, at 7.30 A.M. on Oct. 12th, 1895. He had fallen from a height of seven feet on to an iron girder, striking his left side. He complained of pain over that side and was slightly blanched, but otherwise apparently well. At 11 A.M. his condition became suddenly worse; he was deathly pale and almost pulseless, the extremities were cold, and the respiration quick. Both flanks were dull, but the dulness on the left side could not be wholly got rid of by change of position, and the man complained of great pain in the abdomen and said he thought he was dying. Restoratives were employed, and by 3 P.M. he had rallied sufficiently to make operation a reasonable thing to attempt. In the meantime it had been observed that the quantity of fluid in the abdomen had greatly increased. The same operation was carried out as had been done in Cases 1 and 2. On making the median incision an enormous quantity of blood gushed out, the peritoneal cavity being literally distended to its utmost capacity. When the spleen was brought into view it was found to be ruptured completely across, the vessels in the hilum being also torn. The cleansing of the peritoneum from blood and clot took some time, and the wounds were closed in the usual way. The patient gradually rallied and at the end of a fortnight he appeared in every way as if completely convalescent. He then commenced to lose ground without manifest cause and soon presented the appearance of extreme anæmia. His aspect was withered and sallow; he lost 3 st. in weight and became extremely feeble. There was a daily rise of temperature and the pulse was rapid. He also had fainting attacks, headache, great thirst, severe pains in the abdomen, and passed an excessive quantity of urine. The red blood discs numbered 2,500,000 and the white corpuscles 17,000 per cubic millimetre. It was determined to treat this patient on general principles. He was given cod-liver oil and bone marrow, but it was not until arsenic was administered that any real improvement was observed. In about two months the number of red and white corpuscles in the blood became normal. He gradually regained weight and at the present time was in robust health and following his occupation as a labourer, but all the external lymphatic glands could be felt to be definitely enlarged. Mr. Pitts and Mr. Ballance discussed in detail the diagnosis of ruptured spleen, laying stress especially on the following points: (1) the locality of the injury; (2) the evidence of internal hæmorrhage; (3) the great increase of the fixed splenic dulness; and (4) the fact that while both flanks were dull on percussion the right flank alone became entirely resonant on change of position. They then discussed the choice of the time for the performance of the operation, the details of the operation, and the treatment of the injured organ. With reference to the last point, they urged that in certain cases the hæmorrhage might possibly be arrested by some means other than the removal of the organ. The only other similar successful case (Reigner's) on record was then narrated, and the special symptoms produced by the removal of the normal spleen in man and brutes briefly described. The paper closed with the suggestion that the cases might throw some light on the physiology of the spleen, and it was pointed out that the serious symptoms that arose in consequence of the loss of the spleen in Cases 2 and 3 were apparently equally well combated in the one case by splenic extract and in the other by arsenic.—Mr. SILCOCK asked whether there was any bleeding from the rupture at the time of the operation. In one case the rupture was very small, and removal of the whole organ seemed to be a heroic procedure. Had the actual cautery been tried as a hæmostatic? It was not rare to find post mortem deep cicatrices indicating previous rupture.—Sir DYCE DUCKWORTH said that the results in splenic leukæmia and Hodgkin's disease were by no means encouraging, but those described in the paper were ruptured but otherwise healthy organs. He hoped for a physiological appendix to the paper later giving the after-history of the cases.—Mr. F. C. WALLIS asked why it was considered necessary to extirpate the spleen in each of these cases. He confirmed the statement that cases of recovery from extensive and deep rupture of the spleen were not rare.—Dr. MOTT said that the fact that the spleen underwent rhythmical contractions was in favour of extirpation for rupture, as the contractions would favour the recurrence of bleeding.—Mr. BALLANCE, in reply, said that in the case of the boy the spleen was bleeding at the time of the operation and he operated for secondary hæmorrhage. The vessels at the hilum were torn and hence suture was not possible.—Mr. PITTS, in reply, said the cases seen post mortem of recovery from ruptured spleen were very rare compared with those which proved fatal from hæmorrhage. He deprecated the use of the actual cautery, but would much prefer suture in cases where the rent was of a character which allowed of it. He promised that the after-history of the cases should be recorded.

Dr. HALE WHITE related the histories of two cases of Pneumothorax in the course of Typhoid Fever, and both due to straining at stool. The first patient, a young man aged nineteen years, had an ordinary attack of typhoid fever followed by a very severe relapse. He was convalescing from this when on the forty-first day, while the bowels were being opened after an enema, he suddenly became collapsed, livid, bathed in perspiration, and almost pulseless. For some time previously to this he had all the physical signs of a little fluid at the left base, and as immediately after the attack of collapse it was found that he had all the signs of left pneumothorax it was concluded that whilst straining the pleura, weakened by inflammation, had ruptured. The chest was aspirated. Seven ounces of non-purulent fluid with flakes of lymph floating about in it were withdrawn. The patient improved somewhat, but died three days later. The second case was that of a boy aged twelve years who, during the fifth week of his illness after a severe attack of typhoid fever, developed the general and local signs of a localised empyema at the right base. An exploring needle failed to withdraw pus, but the next day he coughed some up. As the temperature did not fall arrangements were made for the empyema to be opened externally, but two hours before the time fixed for this, while his bowels were being opened, the boy suddenly became extremely collapsed and livid and developed all the signs of right pneumothorax. He appeared almost dead and was quite insensible, but oxygen inhalations seemed to keep him just going. The right chest was opened where from the physical signs it appeared probable that fluid was present and twelve ounces of foul pus escaped. The operation was done without an anæsthetic, and the boy was so far gone that he never flinched. After the operation he gradually regained consciousness and was ultimately discharged from the hospital quite well. Here probably the localised empyema which had burst into the lung ruptured into the general pleural cavity during straining, and hence the pneumothorax.—Dr. GOODHART read notes of the case of a man aged twenty-four years who was sent to him by Mr. Qualtrough of Holloway on May 7th, 1891. The patient had had a slight attack of pleurisy in 1891 and returned to work after a stay at the seaside. He said he had had flying pains about his chest for some time, and for a week previously had felt puffy in his breathing on running upstairs. When Mr. Goodhart saw him he was pallid and short of breath, with well-marked pneumothorax on the right side, the heart being displaced to the left. He went into the country for a couple of months, and on his return had gained 16 lb. in weight, being in all respects quite well. On July 5th, 1892, he came again with a pneumothorax on the left side, which had come on suddenly. He said he had

had as before flying pains about his shoulders and chest. The heart's beat was displaced to the epigastrium and reached to the right of the sternum. As on the former occasion there was no real distress and he considered himself quite well. He remained well during the autumn and winter, and when Dr. Goodhart saw him again there was no difference between the two sides of the chest. The interest of this case lay in the pneumothorax occurring first on one side and then on the other in both instances apparently without adequate cause, also that the air was rapidly absorbed on both sides without giving rise to any evidence of pleuritic disturbance. The rupture of an emphysematous bleb was, he thought, the most plausible explanation of the occurrence.—Dr. HABERSHON thought that in Dr. Hale White's cases the cause was probably the rupture of an emphysematous bleb while the patients were straining. Amongst the cases of pneumothorax at Brompton 90 per cent. were due to tuberculous disease, but a majority of the remaining 10 per cent. were due to rupture of an emphysematous bleb.—Sir DYCE DUCKWORTH said that after protracted typhoid fever pyæmic symptoms might supervene, associated with scattered pulmonary abscesses. The pus of these abscesses might contain not only Eberth's organism but also pyococci. It was quite the exception to find emphysema in young people, and though it was common in older people, yet rupture in them was rare.—Dr. HALE WHITE, in reply, said that personally he was inclined to agree that pleurisy was common in the course of typhoid fever in spite of the text-book statement to the contrary. He had seen the rupture of emphysematous blebs give rise to pneumothorax, but in his first case there had been an acute pleural inflammation and the thickness of the lymph deposit would presumably tend to strengthen the pleura and check any tendency to rupture. The mode of causation mentioned by Sir Dyce Duckworth was probable in the second case. A fellow student of his, while suffering from pleuro-pneumonia, suddenly developed pneumothorax. In that case it was said to be due to a weakening of the pleura by inflammation.

HUNTERIAN SOCIETY.

Annual General Meeting.

THE annual general meeting of this society was held on Feb. 12th in the London Institution, Mr. C. J. SYMONDS, President, being in the chair.

A cordial vote of thanks to the retiring President was passed by acclamation, and, after the usual compliments to the officers of the past year, the following were unanimously elected for the coming year. President: Dr. G. E. Herman. Vice-Presidents: Dr. R. Hingston Fox, Dr. A. T. Davies, Mr. T. Mark Hovell, Mr. T. H. Openshaw. Treasurer: Dr. F. C. Turner. Trustees: Dr. H. J. Fotherby and Mr. F. M. Corner. Librarian: Dr. A. T. Davies. Orator, 1897: Dr. R. Hingston Fox. Secretaries: Dr. Fred. J. Smith and Mr. A. H. Tubby. Council: Dr. T. H. A. Chaplin, Dr. W. J. M. Ettles, Dr. B. Dawson, Dr. T. G. Lyon, Dr. J. W. Oliver, Dr. W. Rawes, Mr. Henry J. Sequeira, Dr. St. Clair B. Shadwell, Dr. J. F. Woods, Mr. Hope Grant, Mr. C. J. Symonds, and Mr. J. H. Targett. Auditors: Dr. T. G. Lyon, Mr. F. G. Brown, Mr. Hope Grant, and Mr. F. R. Humphreys.

The Fellows then adjourned to the theatre of the London Institution to listen to the annual Oration by Dr. G. Newton Pitt on Hunter and His Contemporaries with special reference to Hunter. After a warm vote of thanks to the Orator, proposed by Dr. Davies, and seconded by Dr. J. H. Sequeira, the meeting dissolved.

PATHOLOGICAL SOCIETY OF MANCHESTER.

Cystic Degeneration of Kidneys following Abortion.—Sarcoma presenting in the Nasal Fossa.—The Classification of Infiltrations and Degeneration.

A MEETING of this society was held on Feb. 12th, Dr. H. R. HUTTON, President, being in the chair.

Dr. ARNOLD W. W. LEA showed specimens and microscopic sections from a case of Cystic Kidney, in which acute nephritis had developed as a result of septic absorption following a miscarriage at three months. The patient was admitted to Queen Charlotte's Lying-in Hospital under the care of Dr. Grigg. On admission the temperature was 104°F., and she was evidently suffering from septic absorption. The uterus was emptied, its contents being very offensive, and the temperature rapidly fell to 99°, never rising again above 100°. The urine, however, was very scanty, containing blood and numerous epithelial casts; urea was much diminished in amount and the urine almost totally suppressed. Distinct tumours were felt in each lumbar region and considered to be enlarged kidneys. The patient died in ten days from uræmia. At the necropsy both kidneys were enlarged (the left was 13 oz. and the right 10 oz.). On the surface of the right kidney a few small cysts and on the left kidney a large number of cysts were seen, most of them being about the size of a large pea and containing yellowish fluid. On section the cortex was much increased in thickness, the pyramids being atrophic; the capsules were adherent. Microscopically the kidneys showed chronic interstitial change, the renal tissue being compressed by cysts; Malpighian corpuscles were scant in number. An acute parenchymatous and interstitial nephritis had supervened on this. In some sections the kidneys were distinctly portal in type; fibrous septa passed in from the capsule and numerous embryonic and imperfectly formed glomeruli were seen between the cysts. An abscess, probably recent, was seen in the left ovary, and a fresh adhesion of a coil of intestine to the fundus uteri; there was no peritonitis. The case was evidently one of chronic cystic degeneration of the kidneys of adults, congenital in its origin. The change had, however, not advanced to an extreme degree as in some recorded cases when the kidneys have been of enormous size. It is remarkable that the patient should have gone safely through so many pregnancies. There was no history of any renal symptoms preceding this attack, and she might probably have lived many years had not acute nephritis developed. This was no doubt septic in its origin.

Dr. HARING related the following case of Sarcoma presenting in the Nasal Fossa. The patient was a female, aged twenty-six years, suffering from complete obstruction of the right nasal fossa with swelling of the right side of the nose, epiphora, and unilateral right-sided paresis of the soft palate. The mass which blocked the fossa was seen to extend close to the anterior nares and by posterior rhinoscopy to occupy completely the posterior nasal aperture; it was of a dirty, pinkish grey colour, and bled freely on being touched by the probe, to which it gave the sensation of doughy resistance. It was found impossible to pass a snare-loop around the mass and a small portion was snared off, which on microscopic examination was found to consist of round-celled fibro-sarcoma. A fine probe-pointed bistoury was used to separate the attachment of the mass, which was on its outer and upper surface. The attachment severed, the mass was easily withdrawn (May, 1895). There was very considerable hæmorrhage. A fortnight later the middle turbinal, infiltrated by sarcomatous growth, was removed by the curette. Curettage of any presenting growth was done regularly every three or four weeks, and the patient kept in good health until the end of December, 1895, more than five months after the main removal. At this time epiphora and slight swelling between the eye and nose recurred. With a view to more radical operation the nasal fossæ were exposed by throwing down the nasal bones and the nasal process of the right superior maxilla in one flap. It was then found that the growth was limited to the body of the ethmoid, the cribriform plate being intact. The remains of the body of the ethmoid were removed, together with all the adjacent suspicious mucous membrane. One of the particular points of interest in the case was the fact that the first appearance of disease in the nasal fossa was a polypus, which, when removed by Mr. Cottam of Prestwich, presented all the appearances (macroscopically) of an ordinary benign nasal polypus. There was a speedy recurrence of a similar polypus, which was again removed by Mr. Cottam and again recurred. At the second recurrence the growth appeared more extensive, and, a portion having been removed and shown to be of a sarcomatous nature, Mr. Cottam sent the case to the Hospital for Consumption and Diseases of the Throat, where she came under the care of Dr. Haring. From the first appearance of the polypus to the second recurrence (undoubtedly sarcomatous) there was a period of from four or five months. Thus the first polypus, benign in appearance, either (1) became malignant, (2) was really malignant at the time, or (3) was caused by the irritation of the malignant growth on the surrounding tissues. With regard to 1 the period of time—from four to five months—and

only two removals are hardly sufficient to warrant this theory; with either 2 or 3 (and Dr. Haring inclined to 3) it is worthy of attention that the prognosis in a case of apparently simple nasal polypus is not invariably so good as one is disposed to think in the general routine of practice.

Dr. DELÉPINE read a paper on the Classification of Infiltrations and Degenerations. After pointing out that degenerations are lesions of fundamental importance, indicating as they do certain reactions of tissues to morbid agents, he went on to say that much confusion still existed in text-books regarding the classification of these lesions. This was specially true when their relations to infiltrations were considered. In degeneration we must see a scale of downward changes, indicating the effects of influences more or less deleterious to the organisms. These changes always imply a loss of active protoplasm, either through excessive differentiation or active breaking down, ending more or less rapidly in the death of the cells. Between degenerations and necrobiosis, or necrosis, there is no very sharp margin. Infiltrations are the result of the accumulation in or between the cells of a tissue of some product normally present in the body or not. A true infiltration is not the result of a disintegration or of the differentiation of the cellular elements affected by it, but several of the lesions known as infiltration are closely allied to degeneration. Certain lesions may be considered either as degenerations or as infiltrations, according as they are taken in connexion with the body as a whole or a definite organ or tissue. Thus lardaceous or waxy disease is manifested by infiltration of most of the vascular tissues of the body, but is probably the result of degeneration taking place in certain cells. Mucoid or colloid degeneration of epithelial cells is followed by parallel infiltration of the connective tissue spaces which were occupied by or in the neighbourhood of those degenerated cells. For descriptive purposes it is necessary to put aside the complications produced by this concurrence, and in special morbid anatomy an arrangement based on the anatomical changes observable at a given time must be adopted.

LEEDS AND WEST RIDING MEDICO-CHIRURGICAL SOCIETY.

Treatment of Burns.—Rheumatic Fever.—Exhibition of Cases.

A MEETING of this society was held on Feb. 7th, Mr. MAYO ROBSON being in the chair.

Mr. W. H. BROWN read a paper on the Treatment of Burns, which he considered was at the present day unsatisfactory. The death-rate from burns of all degrees in the Leeds General Infirmary was identical with that of twenty years ago. The causes of death are, first, shock, and, second, septicæmia. He recommended that a dose of morphia be given first of all to allay shock and allow the parts to be carefully cleansed and dressed. To keep the patient warm and protect the burns from air he advocated the continuous use of a warm bath rendered antiseptic with boric acid. Carbolic acid and mercury he discarded as being too easily absorbed. To lessen or prevent septicæmia he suggested that in future, where possible, the surgeon should after administering ether cut or scrape away the tissues that appear to be destroyed beyond a chance of recovery and then apply an ordinary surgical dressing. At present Mr. Brown uses eucalyptic oil, which is non-toxic and non-irritating.—Mr. J. W. TEALE (Scarborough) had used chloroform to apply and re-apply dressings, and thought that this decidedly lessened shock.—Mr. PRIDGIN TEALE observed that carbolic acid entered into combination with the sloughs, forming a kind of protecting leather which would be comparatively harmless.—Dr. CHADWICK and Dr. J. B. HALL spoke strongly in favour of the method employed in Vienna of using continuous warm baths throughout the treatment.—Mr. LITTLEWOOD observed that some time ago atropine was always given to allay shock. He thought that the warm bath treatment was the best, but believed that carbolic acid was not safe for the dressing of large burns owing to its ready absorption.

Dr. CHURTON gave an analysis of 135 cases of Rheumatic Fever, with remarks upon the Differential or Determining Factors of Arthritis and Chorea. These cases were under his care in the Leeds General Infirmary in the last five years. Six of them were children of, or under, ten years of age. In five of these the cause assigned was a "wetting"; and in one it was influenza. There seemed to be an almost general agreement or belief (1) that rheumatism had for its origin a microbe which was probably either intestinal or gastro-duodenal, and was swallowed with food or drink or with saliva; (2) that chorea was a rheumatic disorder; and (3) that chills and "wettings" aided the micro-organisms, but could not alone cause rheumatism. Even if uric acid or glycocine in the blood were the direct excitants of arthritis (and chorea) their presence was probably due to the action of a microbial toxine upon liver-cells and leucocytes. The details tabulated concerning the 135 cases were (1) state of health before the attack; (2) the assigned cause of the attack; (3) the joints first affected; and (4) a few observations in some recent cases upon acetone, indican, &c., in the urine. 1. The previous health was defective in 98 cases; in only 9 could it be said to be fairly good; and in none was it perfect. The better the health the slower is the onset, and the more potent must be the auxiliary causes—repeated "wettings" and strain; a series of colds; hard and wet work; wet through all day; wet clothes worn for several hours, &c. Of the 98 patients, 23 were ill-developed and had never been strong; 16 had been exhausted by overwork, want of food, anxiety, &c.; 12 had had several previous attacks; 31 had some chronic disorder, migraine, ozæna, otorrhœa, leucorrhœa, amenorrhœa, affections due to living in insanitary houses, &c. In 26 cases the reports furnished no evidence. 2. The causes assigned by patients were as follows: wetting, 62; chill, 15; damp clothes, 13; injury, 2 (a blow and a sprain); unhealthy houses, 2; other causes (influenza, fatigue, constipation, &c.), 9; no cause apparent, 5; and not stated, 25. Constipation (that is to say, retention of toxines and culture media) was prominent in many of the cases; diarrhœa in only 1; and indican, only recently looked for, was found in 9 (in these cases aperients, large enemata, and salol were more effective than salicylates. 3. The joints first affected are clearly indicated in only 33 of the cases. Chills or injuries, when they occur, seem to determine the time and site of the inflammation; in not one of the 33 is there an exception to the rule that the limbs which are most or alone chilled or injured are the first to show symptoms—arthritis or pain. This fact attracted attention to the following case. A boy aged nine years, formerly rheumatic, was startled by a man leaping out of an ashpit in the dark and seizing his arm. Chorea began immediately and arthritis three days later. In this case the injured part was the brain; the impressions on the sensorium would cause violent impulses and excitations; the motor area would receive the equivalent of a real blow; and just as rheumatic inflammation appeared first in the limbs injured by a blow or a sprain, so in this case the rheumatic disorder began in the injured brain.—Dr. MANTLE (Halifax) said that he brought the bacterial causation of rheumatism before the profession at the Brighton meeting of the British Medical Association ten years ago. Acute rheumatism was no more caused by chill than was pneumonia. Chill might be an exciting cause, but there was a something more which he believed to be a microbe.—Dr. GRIFFITH spoke in favour of the connexion between rheumatism and chorea. In 100 cases of chorea he had found distinct acute or sub-acute articular affection in fifteen and in some thirty others there was a more indefinite yet probably rheumatic affection.—Dr. BARR'S experience did not lead him to adopt the view that rheumatism and chorea stood in any causal relationship to one another.—Dr. JOHNSTONE CAMPBELL said that in his opinion the association of rheumatism and chorea was common, and that the former was often overlooked while chorea was often diagnosed when not present.

The PRESIDENT showed a patient whom he had trephined some years ago for Coma, the result of meningitis, in whom marked relief had resulted at the time from tapping the ventricles. The patient was now an active, healthy looking girl, and had had no return of her inflammatory symptoms, her only drawback being occasional epileptic seizures, the cause of which could not be traced. He also showed a man aged thirty-five years on whom he had performed Nerve-grafting six years ago, one year after a scythe accident which had severed the median and ulnar nerves above the elbow. The right arm was wasted and flail-like and both motor and sensory functions of the two nerves were in abeyance. The ends of the ulnar nerves were re-freshed and united by means of a rabbit's sciatic nerves, and, these having been used, the spinal cord was employed for the re-freshed ends of the median nerve. Union was by first

intention and recovery gradually ensued. Now the patient has a good grasp and full power over the extensors and flexors of the forearm, wrist, and hand. Sensation returned more speedily than motion and was quite satisfactory.

LIVERPOOL MEDICAL INSTITUTION.

Roentgen's Rays.—Gallstones treated by Operation.—Physical Effects of Thoracic Effusions.

A MEETING of this society was held on Feb. 13th, Dr. RICHARD CATON, President, being in the chair.

Mr. ROBERT JONES showed a Photograph taken by Professor Lodge in the case of a boy Shot in the Hand. An account of the case will be found at p. 476 of our present issue, together with a reproduction of the photograph, which very accurately demonstrates the position of the bullet as being at the articulation of the os magnum with the metacarpal bone.

Mr. PAUL read a short paper on the Surgical Treatment of Gallstones. Nine cases were recorded, all of which recovered. They all occurred in women. The average duration of the symptoms before operation was nine years. In four the gall-bladder was fairly healthy; in two it was distended to form a large tumour; in one it was distended and inflamed; and in one it was absent, the stones being in the common duct. In one the ducts were dilated up into the liver, where the stone receded, it being necessary to perform cholecystenterostomy, a Murphy's button being used. Mr. Paul considered cholecystotomy the best operation that had been introduced during recent times.

Dr. MACALISTER read a paper on the Physical Effects of Thoracic Effusions. He related the results of clinical and experimental observations of his own regarding the explanation of some of the physical signs and of the visceral displacements. He considered that in acute cases the dyspnœa, the immobility of the side, and the diminished breath sounds were mainly the result of interference with the action of the diaphragm by the pressure of the fluid upon it. Cardiac displacements were shown to be due to the pressure of the fluid. The lowering of the heart was probably due to the manner in which the pleura becomes distended. He drew attention to the fact that when full of fluid a portion of the pleura crosses over the middle line of the chest. The anatomy of the displaced organ was referred to, and its relation to the lung on the healthy side considered. The infrequency of any appreciable depression of the spleen in cases of left-sided effusion was explained by the occurrence of a recess, which remains in the under surface of the diaphragm near its attachment to the ribs even when the diaphragm is forced down by fluid. In this depression the head of the spleen lies uninfluenced by pressure.—Mr. THELWALL THOMAS related an instance of displacement of the spleen into the iliac fossa by a large empyema in the left chest.—Dr. BUCHANAN thought that the methods which had been adopted in Dr. Macalister's experiments were not beyond criticism. He thought that the reader of the paper had drawn attention to an important point when he showed that the dull area in pleuritic effusion extended across the middle line of the chest, above the level of the second rib. He could not agree that the loss of the breath sounds is principally due to diminished action of the diaphragm irrespectively of the amount of fluid, for if the normal thorax be surrounded by a cushion of water all the sounds are greatly diminished.—Dr. HILL ABRAM said that he dissented from Dr. Macalister's conclusions. He agreed with Traube, Vierordt, Douglas Powell, and others who held that there was a certain amount of traction by the lungs upon the mediastinum, due to the fact that the lungs are kept in a state of slight distension by the pull of the chest wall; this was an indubitable fact. It followed, he thought, that the first result of an effusion into the pleura was to neutralise the traction of the corresponding lung upon the mediastinum and to allow that exerted by the lung of the opposite side to pull the heart over to the sound side. Later, actual pressure of the effusion pushed the heart over and depressed the diaphragm. He considered diminution of Traube's space indicated a considerable effusion.—Dr. GLYNN, Dr. BARR, Dr. CARTER, and Mr. DAMER HARRISSON also took part in the discussion.—Dr. MACALISTER replied.

NOTTINGHAM MEDICO-CHIRURGICAL SOCIETY.

Medical Aid Societies.—Hypertrophic Rhinitis.

A MEETING of this society was held on Feb. 8th, Dr. MUTCH, President, being in the chair.

The report of the committee, elected at a former meeting of the society, for the purpose of considering the best means of dealing with the subject of Medical Aid Societies was read. It was to the effect: (1) That all the receipts except what is necessary for expenses should go to the medical men; (2) that canvassing and public advertisements should not be allowed; (3) that some evidence should be obtained of the financial position of the persons wishing to join before they are admitted; (4) that each person should be medically examined before admission; (5) that medical aid societies promoted by and for the pecuniary aid of men outside the medical profession should not be countenanced; (6) that medical aid societies associated with life assurances should not be countenanced; (7) that no objection should be held to private medical aid societies of medical men provided that they conform to the above principles; and (8) that no person, adult or child, should be admitted as a member of a medical aid society at a less charge than one penny per week.—A discussion on the subject followed, in which Mr. MACMILLAN, Dr. WATSON, Dr. RANSOM, Mr. SNELL, Dr. TRESIDDER, Dr. ROBERTS, Mr. COX, the PRESIDENT, Dr. HEELIS, Dr. FFENNELL, and Mr. MACKIE took part, and it was decided that the report should be accepted and agreed upon by the society. It was further decided that the committee should reconsider the matter and devise the best practical means of dealing with the anomalies of medical aid societies and report to the next meeting of the society.

Mr. GRAY read a paper on Hypertrophic Rhinitis. After describing the anatomy, both macroscopical and microscopical, of the nasal cavity he further described the functions of the mucous membrane of the parts in health and the pathological bearing when the mucous membrane was diseased. He thought that most cases of post-nasal catarrh, chronic pharyngitis, pharyngitis sicca, and mucous catarrh of the middle ear were dependant upon and consecutive to the disease under consideration.—Dr. MUTCH, Mr. MACKIE, Dr. RANSOM, and Mr. COX spoke, and Mr. GRAY replied.

EDINBURGH OBSTETRICAL SOCIETY.

Exhibition of Specimens.—Osteomalacia.—Ulcus Serpiginosum of the Vulva.—Braune's Os Internum and the Retraction Ring.

A MEETING of this society was held on Feb. 12th, Dr. A. BALLANTYNE, President, being in the chair.

Dr. HAULTAIN showed a specimen of Missed Abortion where the ovum had been retained for three or four months after death of the fœtus. It was expelled spontaneously, but there was severe hæmorrhage from the placenta, which was partially adherent. Instead of being atrophied, as these cases are usually described, it was vascularised, evidently due to the adhesion.

Dr. MILNE MURRAY showed two specimens of Malacosteal Pelvis; both specimens were from males. One showed certain vertebræ more affected than others; the other had the disease present only in one side of the pelvis.

Dr. JAMES RITCHIE read a paper on Osteomalacia, with a discussion of the Etiology and Treatment. After referring to four cases met in practice he gave the history in detail where oöphorectomy had been performed and where rapid improvement at once occurred. There has grown up during the past ten years an extensive literature, especially in Germany and Italy, on this subject. The onset of the disease is usually obscure, and it affects chiefly the osseous and nervous systems. Cases are often mistaken for rheumatism or disease of the spinal cord, having paresis of the lower limbs, increase of knee-jerk, contracture of adducters, and general weakness of the muscles. The earliest symptom is usually pain in the sacrum, pelvis, or spinal column, followed by difficulty in walking, producing a rolling or waddling gait. The disease may be recovered from at any stage; it may progress slowly or rapidly, evenly or with exacerbations. The bones bend owing to the removal of earthy salts and the pelvis assumes its characteristic

form. Owing to this distortion the origins and insertions of the muscles of the thighs are approximated, and their ability to act is therefore diminished. Sometimes rhythmical movements like those characteristic of cerebro-spinal sclerosis are present, also tetanic seizures. The generative system, apart from difficulty in parturition, seems to be healthy. Metrorrhagia may be present. There seems to be a considerable difference in age in different localities. In Bavaria the largest number of deaths is returned as at between twenty and thirty years of age. The disease has been observed in men. Lactation seems to favour the production of the disease, yet it has not been noticed in Japan, where the women nurse for two or three years. The morbid anatomy consists in the early stages of dilatation and congestion of the medullary vessels, and the bones become more cancellous. The bone salts are removed from small areas, but immediately beyond the decalcified area the bone seems to be normal. Osteoclasts are seen in the parts affected. There is no inflammatory exudation, but a process of new formation can be seen going on with the absorption. No constant changes have been found in the blood, and the tissues as well as the blood have been subjected to very careful bacteriological examination, but no constant result has been obtained. A condition similar to this disease has been noted in animals. About twenty years ago the condition was considered almost hopeless. Cases in which the disease advanced during pregnancy have been known to recover after confinement, and the climacteric has also had a beneficial effect. The disease has, however, been known to occur after the menopause. Different writers have had good results from internal treatment, the most beneficial being phosphorus. Baths of sodium chloride have given good results. Chloroform narcosis has been suggested, but very little benefit has followed its use. Oöphorectomy has now become an acknowledged method in the treatment. The result is not definite and certain, but a large majority are completely cured, others are improved, and only a small proportion show persistent relapse or no change in the course of the disease. The uterus has been removed after oöphorectomy with improvement. Dr. Ritchie discussed very fully the different opinions held with regard to the etiology of the disease; he considered the essential character of the disease to be trophic. This view is borne out by the microscopic examination of the bone both during the stage of advance and during recovery, as not only the salts but also the organic parts of the bones are removed. Another fact is the early date at which nervous phenomena appear. These are not due to pressure; and the early increase of patellar reflexes, the ankle clonus, and muscular spasms all show that the cord is involved. After operation the rapid amelioration and disappearance of the pains on movement also point to the central origin of the disease. Those symptoms are sometimes considered as reflex and place the source of irritation in the ovaries; but the disease has been known to arise after the uterus and ovaries have been removed. Either some other source of irritation must be found or the disease located primarily in the spinal cord. The precise nature is not known, but it probably involves some of the large caudate cells in the anterior cornua, and it may also affect the adjacent nerve cells, thus leading to the increased reflexes. With these cells in a condition of low vitality and increased irritability the effect of reflex irritation from the ovaries or other organs at the menstrual periods and during pregnancy might be sufficient to excite or aggravate the disease, and prolonged lactation or deficient hygienic conditions by lowering the general nutrition would also affect the nerve centres.—Professor SIMPSON stated he had been much impressed with Dr. Ritchie's reasoning, and considered his paper would be a useful source for reference on osteomalacia.—Dr. BARBOUR thought it was difficult to accept Dr. Ritchie's theory of spinal origin owing to the rapid improvement after operation. He was inclined to believe it was due more to a reflex condition affected by removal of the ovaries.—Dr. UNDERHILL explained the fact that it occurred in males and that the ovaries were therefore not of essential moment in the cause of the disease.—Dr. MILNE MURRAY referred to a case of Porro's operation performed by Dr. Underhill for osteomalacia, when the stump separated on the fifth day. Another performed by Dr. Croom at the same time had separation of the stump during the fourth week. This showed that the osteomalacic process affected the soft tissues of the pelvis as well as the bones.

Dr. A. H. F. BARBOUR read a paper on a case of Ulcus Serpiginosum of the Vulva. This case was reported to the society twelve years ago by Dr. Angus Macdonald as a case of lupus. The patient, now aged sixty, was married at twenty-two, and after five years had a full-time child and healthy. Seven other children were born, five of whom are still alive and well. Her first husband died aged forty-one; some time after she fell over a cask and received a bruise on the genitals, which left a persistent hard lump. At forty-four she married a man who had evidently been some months under treatment for some venereal trouble. A year after marriage she noticed a slight bleeding and discharge, which she thinks came from the lump, but she could not be positive. When forty-six she underwent operation by Dr. Angus Macdonald, who stated that, apart altogether from clinical evidence, there was sufficient microscopical evidence to warrant a diagnosis of lupus. At this time the labia were enlarged, nodular, with their inner surfaces ulcerating; the labia minora had been destroyed by ulceration. The diseased tissue was removed by gouge, scissors, and cautery, and the patient was dismissed cured. A year afterwards the disease began to return and progressed slowly. She was again operated on in 1887 and the condition improved. Four months ago the whole vulvo-anal region appeared as an ulcerated surface covered with faintish red granulations; the skin was overhung by the new formation. After operation with the sharp spoon she was much improved, but the disease has again returned in certain places. Dr. Norman Walker examined the case and gave the microscopic characters. After detailing its characters he stated it was unlike any tissue that he had previously examined. Tuberculosis and carcinoma were easily excluded. He submitted sections to Dr. Unna, as it seemed to correspond with the disease described in his book as ulcus serpiginosum, and Dr. Unna believed it was quite possible that it was so. Dr. Norman Walker regarded the growth as of this nature rather than endotheliomatous. The bacilli found corresponded well with Unna's description.

Dr. A. H. F. BARBOUR also read a paper on Braune's Os Internum and the Retraction Ring. He had not published previously the microscopic evidence which led Dr. Webster and himself to describe the prominence in the muscular wall of the uterus in their frozen section as the retraction ring, and the examination of which allows the os internum to be approximately defined. He showed many microphotographs of the disputed area from this section, and justified the assertions with regard to it that there is a retraction ring and that the os internum lies below it.—Dr. BERRY HART considered Dr. Barbour had conclusively proved the subject of the position of the retraction ring.

ROYAL ACADEMY OF MEDICINE IN IRELAND.

SECTION OF OBSTETRICS.

Elephantiasis (so called).—Eclampsia.—Ovarian Tumour in a Child.—Fibro-myomatous Uterus.

A MEETING of this section was held on Jan. 31st, the President, Dr. LOMBE ATTHILL, being in the chair.

Dr. F. W. KIDD read notes on a case of so-called Elephantiasis occurring in a patient aged thirty-three years who had been sent to him from the country. She had never been abroad nor was there any suspicion of a syphilitic origin. She attributed the growth of the tumour to a fall which happened about thirteen years ago. It commenced in, and involved all, the tissues of the right labium and hung down more than half way to the knees. It did not grow quickly at first, but increased more rapidly for the last eighteen months. She now sought advice for the first time and only because the growth had assumed such proportions that it was impossible for her to sit down with any comfort. There were no disorders of menstruation or micturition. The growth was removed on Dec. 7th, 1895. An elliptical incision having been made, the diseased tissues were dissected out from the anterior surface of the symphysis, where they were very adherent; the bleeding points were ligatured or twisted; the site of the clitoris giving much trouble, a drainage-tube was inserted and the wound was closed with numerous silkworm-gut sutures, but it did not heal by first intention; some suppuration took place, and it was only by the utmost care that septic trouble was avoided. The patient's temperature never went above

101·2° F. She made a good recovery, though somewhat slow. When removed and in the recent condition the tumour weighed 5½ lb. The following was the report made by Dr. McWeeney: "The tumour is whitish in colour, covered close to the pedicle with rather dark-coloured skin, from which grew a few long hairs, whilst elsewhere it is covered with epithelium which has the character of mucous membrane. It is lobulated and very irregular in shape, with numerous papilla-like excrescences, so as to resemble a gigantic wart; the consistency is rather soft. Between the larger lobes are curious sinuous cavities, some of which are actual passages or canals running right through the mass from near the pedicle at one end to the free convexity on the other. Part of the skin covering the base of the tumour is covered with innumerable small pedunculated protuberances like fungiform papillæ. Microscopically the tumour consists of a somewhat œdematous fibrous tissue of loose texture containing so many lymph clefts that in places one might almost term it a lymphangioma. There are also very numerous newly-formed bloodvessels. Around the lymph clefts are many collections of lymphoid and epitheloid cells. Sections of the papilla-like protuberances show essentially the same appearances. The surface is covered with stratified epithelium, which, from its slightly-developed horny layer and absence of hair follicles, may be said to constitute a mucous membrane. I should be inclined to class this specimen provisionally as molluscum fibrosum." Dr. Kidd exhibited two excellent photographs of the tumour before removal.—The PRESIDENT had only met with one case analogous to this, one of the labia being enormously enlarged, but the growth did not reach one-third of the dimensions seen in the present instance.—Dr. JELLETT had observed a case in many respects similar to Dr. Kidd's, one labium being three times the size of the opposite labium.

Mr. HASTINGS TWEEDY read a paper on Eclampsia, arguing that it, like uræmic convulsions, arose from retention products in the system the normal resultants of tissue waste. There may be either a diseased condition of the kidneys or else an increased formation of toxine This latter factor is always present during pregnancy and is in large part to be attributed to the growth of the fœtus. Convulsions do not owe their causation to the presence of toxines in the blood, but rather to the deposit of the poisonous substance in the nervous centres, and he believed that it was quite possible to quickly remove this substance from the endangered centres by depleting the blood of its water. Purging, sweating, or blood-letting would effect this; but the kidneys alone were to be relied on to directly get rid of the harmful substance. Of course, the administration of fluids in any form would completely counteract any good effects which might follow the above line of treatment. Morphia given hypodermically in large doses (up to 2½ grains in twenty-four hours) presented the greatest number of advantages with the fewest disadvantages in the treatment of eclampsia. All now knew that morphia had but slight if any effect on either the heart or kidneys. On the other hand, it limited the formation of toxines, controlled convulsions, dried up bronchial and salivary secretion, was a diaphoretic, and above all prevented the onset of labour. No greater danger could happen to an eclamptic patient than that labour should set in.—Mr. HORNE said that the presence of these toxines had not been demonstrated.—The PRESIDENT said that the danger of the convulsions is infinitely greater when they occur in the earlier stages than when they occur in the later stages of labour. He had induced premature labour successfully in two or three cases.—Dr. ALFRED SMITH pointed out that some German investigators were inclined to believe that acetones in the blood were the cause of eclampsia. The recognised treatment of eclampsia was by large doses of morphia.

Dr. ALFRED SMITH showed an Unilocular Ovarian Tumour the size of an adult head which he had removed from a child aged thirteen years. The patient made a rapid recovery. She had not menstruated.

Sir W. THORNLEY STOKER exhibited a Uterus with a number of attached Fibro-myomata which he had removed from a patient thirty-five years of age. The pedunculated growths varied from the size of a goose egg to one so large that it weighed 15 lb. The entire weight of the parts removed, when drained of blood, was 19 lb. 10 oz., and must, when full of blood, have been about 24 lb. The condition of the patient from the time of operation to the date of meeting, ten days, was perfectly satisfactory. She had not even suffered inconvenience and was practically out of danger.

Reviews and Notices of Books.

Parasitism, Organic and Social. By JEAN MASSART, Assistant at the Botanical Institute, Brussels, and EMILE VANDERVELDE, Lecturer on Political Economy, Brussels. Translated by WM. MACDONALD. Revised by J. ARTHUR THOMSON. With a Preface by Professor PATRICK GEDDES. London: Swan Sonnenschein and Co., Limited. Pp. 124. Price 2*s.* 6*d.*

THIS little volume is an attempt to trace the analogies that exist between the forms of parasitic existence that are found in the animal kingdom with those that may be observed in human society, and is written with some sense of humour. It is the combined production of a biologist and of a political economist. It is shown that in societies of animals and man alike there are to be found individuals and even classes who live at the expense of others without destroying them and without doing them service. In some instances the association is only one of commensalism, as von Beneden has termed it, where one animal accompanies another and feeds at the expense of the host without harming it, merely picking up as it were the crumbs that fall from its table; whilst there are others which lodge in the intestinal canal, or even inhabit the blood of its host, and do not require to take any kind of thought or trouble to obtain the food which has been obtained by the activity of its host, and which is so abundantly provided for it, surrounding it in a more or less elaborated and assimilated condition. The whole series of transitions from free life to parasitism may be traced in some of the Gasteropoda which live on or in the Echinoderms, the animal in each instance possessing in youth the characteristic shell of the gasteropod, thereby proving that they were all derived from non-parasitic types. Thus "Capulus is a parasite of support which attaches itself to Crinoids and lives upon their digestive waste products. Next to it comes Thyca, which buries part of its body in the outer coating of its asteroid host. Then Stylifer, which has almost completely disappeared into the substance of the sea star which bears it. Then Entocolax, which penetrates into the tissues, and is therefore virtually an endo-parasite; nevertheless, it still remains fixed by its hind extremity to the outer wall of its host. Lastly, comes Entoconcha, which is absolutely endo-parasitic and fixes itself by its head end to that part of the vascular system which runs along the digestive tube of its host." Corresponding with all this, and many other examples derived from the animal kingdom are given, we have a development of parasitism in human societies. In lowly organised communities each man must gain his own livelihood and food for his family by work; but, as is seen in the Bosjesmans, who eat ants, wild fruits, and carrion, no opportunity is lost of changing to the parasitic state and living by plundering the Kaffirs, the Hottentots, and the white settlers. So a *gamin* of our streets may be almost simultaneously a parasite as when he practises larceny, a mutualist when he takes a turn at going errands, and then immediately a sort of social saprophyte when he gives himself to the gathering of cigar ends, or a holophytic individual when, reverting to more primitive habits, he betakes himself to the country to gather what fruit he can lay his hands on. In the history of the Roman people we have a classic example of a community which begins with an agricultural, self-supporting mode of life and ends by being altogether parasitic. In the later days of the Republic and under the Emperors the populace were largely fed on the corn of the provincials, and the rich employed armies of slaves to till vast farms.

Mutualism ends, the authors remark, when absenteeism begins, and in most instances parasitism quickly takes its place. In the United States and in Great Britain the proprietary

régime is producing exactly the state of things that prevailed in the Roman Empire, where six monopolists owned among them one-half of the whole province of Africa; and it has been alleged, though we doubt the figures, that at this moment half of England and Wales belongs to 4500 persons, half of Ireland to 744 persons, and half of Scotland to only 70. Again, in the factory system the evolution towards parasitism goes forward in open daylight. In proportion as the extension of the market calls for an increase in the scale of production, the more marked becomes the separation of the wage-earners who are engaged in the actual work of production from the capitalist master, who retains to himself the task of direction alone. Then comes the moment when these captains of industry delegate their functions to lieutenants, reducing their personal interference in the business to a minimum. One step further and the parasitic condition is fully achieved: on the one side work and no property, and on the other side property and no work.

Once more it is easy to trace the transformation of personal services into parasitism, and the authors take as typical examples the clientage of Rome and the court officialdom of France under the ancient *régime*. In the Court of France there was an army of 14,000 men, absorbing a tenth of the entire public revenue, at whose head was a certain number of high and mighty seigneurs, hereditary holders of offices which had gradually assumed the character of lucrative sinecures, such, for example, as the master of the king's horse, master of the pantry, grand master of the wardrobe, grand cup-bearer, grand carver, and many others, the titles showing that the persons actually holding them had taken the place of former companions of the king who were wont to render him real personal services. Spain at the end of the last century, like certain ants, the whole community of which are sometimes destroyed by their parasites, harboured so many parasites that out of a population of 3,800,000 men there were 1,221,000, or nearly one-third, priests, soldiers, marines, nobles, lawyers, Custom-house officers, students, and domestic servants. No wonder its vitality and energy were feeble! We recommend the work to our readers as one from which they will derive both amusement and instruction. The translation is very well done.

The Principles and Practice of Medicine. Designed for the Use of Practitioners and Students of Medicine. By WILLIAM OSLER, M.D., F.R.C.P., Professor of Medicine in the Johns Hopkins University, and Physician-in-Chief to the Johns Hopkins Hospital, Baltimore. Second edition. Edinburgh and London: Young J. Pentland. 1895.

DR. OSLER'S work has acquired such well-merited popularity in this country that the appearance of a second edition in little less than four years is no matter for surprise. It has now been thoroughly revised and several of the chapters have been more or less rewritten. This has involved an increase in size from 1050 to 1110 pages, while the index has also been extended from twenty-eight to thirty-two pages. Much of the change which has been made is due to the incorporation of recent bacteriological research. The chapter on Diphtheria is practically new, owing to the extensive advances which have recently been made in our knowledge of this disease and its treatment, and it forms a very complete and valuable account of the subject. There are many additions to the chapter on Malaria, and even the modern oyster is noticed in a short paragraph on the spread of typhoid fever. The changes in the book are, however, by no means confined to bacteriological subjects. The section on Appendicitis has been much improved, and we note the incorporation of Hawkins's valuable work on this subject, as well as that of other recent writers while the surgical aspect of the question is very fully insisted on. The pages dealing with Diseases of the Nervous System show some important changes; a general introduction to the subject has been inserted dealing with the course of the various tracts, with cerebral and spinal localisation and topical diagnosis; and the text has been embellished with a number of new and valuable diagrams in which the judicious use of colours adds greatly to the clearness and effect. Besides these more striking changes there will be found a multitude of minor additions and alterations, and, thanks to the care with which it has been revised, the work possesses, in addition to the reputation established by the success of the first edition, the great recommendation of being thoroughly up to date. To the English reader it offers a happy combination of the fruits of an eminently cosmopolitan study of medical literature, with the attraction of originality and freshness in the discussion of many questions which in our series of text-books have often received a stereotyped treatment, little conducive to personal thought and investigation on the part of the student. We know of no text-book better adapted for steady reading in connexion with the clinical work of the five years' curriculum.

The Riviera, Ancient and Modern. By CHARLES LENTHÉRIC, Ingénieur en chef des Ponts et Chaussées. Translated by CHARLES WEST, M.D. Berlin. With Maps and Plans. London: T. Fisher Unwin. 1895.

DR. WEST has done a good piece of work in introducing the present volume to English readers. The book is a most pleasant one, full of interest and of the best kind of information on the subject with which it deals, and it will be welcomed by the philosophic traveller and the many English lovers of the French Riviera. Its scope cannot be better indicated than by the following extract from the translator's preface:—

"It is not as a guide-book, but as a companion to the intelligent traveller, and one who will answer every question as to what the land was in bygone days, as well as what it now is, that I present in an English dress this work of M. Lenthéric. ..... Many holiday visitors know nothing of Nice beyond the promenade, and of Monte Carlo besides 'the rooms' and the concerts, and for them this book will have no attraction. There is, however, a large minority who travel, as Opie said he mixed his colours, 'with brains, sir,' and by such I believe that this book will be prized."

Dr. West, we feel sure, will not be disappointed for it is just the book for the wearied brain-worker travelling in search of health, affording, as it does, the right proportion of intellectual exercise and relaxation. It becomes a duty to the English medical man to acquaint himself, as far as his opportunities allow, with the various characteristics of the many continental health resorts, one or other of which he is so often called upon to recommend to his patients. If unable to visit them himself he will find much valuable information about the French Mediterranean in M. Lenthéric's work; in an even higher degree, if he is fortunate enough to make a personal study of these districts, will he find in it a companion supplying just those intellectual wants in which the ordinary guide-book proves so woefully deficient.

The author's interests are mainly antiquarian and archæological, and on such points he presents an array of facts pleasantly narrated in an easy and very enjoyable style, and the modern aspects of his subject are also well treated from the point of view of the geologist, engineer, and sanitarian. His chapters give many an added interest to even the most well-known and most written-about of subjects, such as the glorious Corniche-road, the Rock of La Turbie, and the olive and lemon groves of Mentone; and on many less worn topics, especially when recalling the ancient occupations of the lands by Phœnicians, Greeks, and others—a vivid narrative

of the Saracen irruptions may be specially noted—or in his archæological or philological speculations, his matter is unique and of the highest interest.

Especially valuable from a medical aspect are the reflections on the influence, direct and indirect, of vegetation and forest growth on the health of the country, the important part these play in protecting the soil from the wasting action of mountain torrents and so in checking alluvial deposits—the precursors of malaria—being clearly traced, together with the opposite evils caused by forest fires and indiscriminate tree-felling.

M. Lenthéric is justly proud of the many improvements carried out in these regions by his countrymen in recent years, and he holds sanguine views as to the immediate good results to be expected from the modern introduction of the Australian eucalyptus tree, views with which our own observation disposes us to concur. We can, with Dr. West, recommend the book as a companion to any who travel through these noble lands, "with brains, sir." The translation is an admirable one, written, in fact, in English, not in translated French; there is a good index, with copious and concise chapter headings, and nine finely executed reproductions of old maps and plans add largely to the value of the volume.

LIBRARY TABLE.

The Galenical Preparations of the British Pharmacopœia. By C. O. HAWTHORNE, M.B., C.M. Glasg. pp. 118. London: J. & A. Churchill. 1895. 4*s.* 6*d.*—This book gives evidence of a praiseworthy effort to deal with the infinite detail of the British Pharmacopœia so as to render the main facts in a form which may be readily grasped and remembered by the average medical student. The author has endeavoured to eliminate many details and to retain only those facts which will be of service in the selection and administration of the various pharmacopœial preparations. General principles are dealt with rather than minute variations, and the result is that students are presented with broad outlines which may be committed to memory, while they must consult the Pharmacopœia or some work on practical pharmacy when they wish to prepare any particular official preparation. Students so commonly find difficulty in acquiring a sense of proportion, in determining what must be learnt and what may be neglected, that this handbook will probably be welcomed by them. It must be understood that, although intended for students preparing for examination, it presents facts in an assimilable form without insulting the subject, the student, and the examiner by jingling rhymes devoid of reason or other "tips" so dear to the crammer, so ephemeral in staying power. The author has succeeded in compressing in brief space a large amount of useful information, and the book appears to be commendably free from errors.

On Gout as a Peripheral Neurosis. By WILLOUGHBY FRANCIS WADE, M.B., F.R.C.P. LOND. London: Simpkin Marshall, Hamilton, Kent, and Co. Birmingham: Cornish. 1893.—We owe the author of this *brochure* an apology for not earlier noticing his interesting contribution to clinical pathology. In it he seeks to explain the reason for the various localised manifestations of gout by referring them to peripheral neuritis, which again may be determined by an external agency, such as strain or pressure. He was led to this opinion by the observation that in cases of typical gouty arthritis the pain is not seated in the joint itself, but in its vicinity, and, further, that there may be very definite areas of tenderness corresponding to the lines of nerve-distribution to the implicated region. The occurrence of pain and inflammation in other parts than joints is easily explained by reference to nerve-distribution, whilst the frequency with which traumatism or chill may evoke an attack of gout is much more easily explained on the neurotic hypothesis than on any other. He shows, by reference to the classical description of neuritis given by Erb, how closely parallel are the symptoms of that disorder with those of an attack of gout; and, whilst recognising the current belief that neuritis may be secondary to gout, boldly advances the converse proposition—namely, that neuritis precedes the characteristic gouty inflammation. There is, we think, a good deal to be said for this point of view, which the author puts forward with all diffidence, but with the hope that it may evoke careful observation upon the precise mode of evolution of an attack of gout. He states truly that uratic deposit in joints is variable in amount and often quite disproportionate to the severity of acute attacks, but he does not thereby question the recognised pathology of gout itself. His thesis is rather that in a peripheral neuritis to which the "gouty" state disposes is to be found the most rational explanation of the arthritic and non-arthritic manifestations that characterise it.

Orotava as a Health Resort. London: Street and Co., Cornhill. Price 1*s.* 6*d.* — The position of the Canary Islands within the area of the trade winds, not far from the African coast and just outside the border of the tropics, causes the climate to be remarkably dry and equable, an almost ideal combination for many classes of invalids. Orotava is the name of a town—or rather two towns—and a valley in the mountainous island of Teneriffe, celebrated for its snow-covered peak and situated 4° south of Madeira. At Orotava the temperature on the coldest winter night does not fall below 50° F. and in the middle of summer rarely exceeds 80°. From May to August there is no rain, and even in the rainy season the amount is so small that the annual average is only about thirteen inches. There are several modern hotels on the island and there is frequent and easy communication between England and Santa Cruz, the landing place for Orotava. The length of the voyage is about six days from London or Southampton, five days from Plymouth, and eight days from Liverpool. Much information relative to Orotava and Teneriffe generally is to be found in the pages of this little book; it is also illustrated with several views of the harbour with the steamers and other places of interest.

MAGAZINES.

The Practitioner continues its warnings to the modern nurse, and, indeed, this class of working woman has been much in evidence of late. There is little fear, however, that the trained, intelligent, and obedient nurse will ever lose her place through the eccentricities of those who sometimes, perhaps, forget that they are not responsible for the patient, but that this responsibility lies with the medical attendant. Dr. Ord continues his lectures on Renal Disease. Sir W. Thornley Stoker writes on Excision of the Knee-joint, and Dr. Arlidge upon the Medical Aspect of Factory Laws and Workers. The hero of medicine for the month is Morgagni, and the medico-literary causerie deals with "Molière and the Doctors."

The Birmingham Medical Review.—Mr. Haslam's two lectures upon the Value of Symptoms in the More Common Diseases of the Rectum are well worth reading, as they draw attention to some points not uncommonly overlooked. Mr. Gilbert Barling contributes a very interesting case of Quiet Necrosis of the Femur simulating Sarcoma.

In *Chapman's Magazine* is a story by Miss Gertrude Kingston called "Nurse Agnes." The medical story written by a lay man or woman is usually a wonderful composition, but Miss Kingston has successfully avoided pitfalls, although she has selected a rupture of the liver with which to afflict her hero.

In the *Veterinarian* is a paper by Mr. Hugh Bell which

reveals a most alarming state of things. He tested two herds of Ayrshire cows with tuberculin. In herd No. 1, consisting of thirty-six cows, all as "healthy looking stock as any within miles of them," 86 per cent. were condemned. This result was so astounding that three weeks later the tests were repeated, with the same result. In one case the diagnosis was confirmed by a post mortem examination. In herd No. 2, consisting of twenty-five beasts, 44 per cent. reacted.

The Journal of Microscopy and Natural Science: the Journal of the Postal Microscopical Society. Editor: ALFRED ALLEN, Hon. Sec. Postal Microscopical Society. Associate Editors: Professor V. A. LATHAM, M.D. Chicago University; J. STEVENSON BROWN, President Montreal Microscopical Society; and FILANDRO VICENTINI, M.D. Chieti, Italy. Vol. V., Third Series; Vol. XIV., Old Series. London: Baillière, Tindall, and Cox. 1895. Pp. 456.—The present volume of the *Journal of Microscopy* and *Natural Science* contains many papers of exceptional interest and value. We cannot pretend to mention all of them, but we may select a few for special notice. The first of these is a long and carefully written memoir by Dr. F. Vicentini on the Bacteria of the Sputa and Cryptogamic Flora of the Mouth, which contains the results of a long series of observations. It will prove of chief interest to the dental surgeon, but should be studied by every physician and surgeon, since it deals with microscopic appearances with which they ought to be familiar. Mr. C. J. Watkins contributes an excellent paper on the Denizens of an Old Cherry Tree living on the Cotswold Hills, which included Pemphredon lugubris and P. shuckardi, the larva of Melandrya caraboides, a specimen of Pompilus spissus, dead specimens of Calathus cisteloides and Sinodendron cylindricum, and living ones of Cis boleti, C. hispidus, C. nitidus, Anaspis frontalis, and A. fasciata, the larva of Perithous varius, an imago of Omalus auratus, specimens of Crabro chrysostomus, and many others, forty-nine species of thirty-nine genera of twenty-six families having been collected. Mr. J. Tempere supplies a note on the Technology of the Diatomaceæ, especially in regard to the Treatment of Soundings. Mr. H. C. A. Vine gives an account of the Predacious and Parasitic Enemies of Aphides, illustrated by many drawings and especially dealing with the aphidivorous Syrphidæ and Neuroptera. Mr. W. Thomson has written a good paper on the Influence of Light on Life, and biologists will read with pleasure a memoir on the Origin of the Oldest Fossils and the Discovery of the Bottom of the Ocean. Mr. Charles D. Soar gives a description, accompanied by illustrations, of the British Hydrachnidæ; Lieutenant-Colonel L. Blathwayt furnishes an account of the Aphaniptera; and Mr. W. Thomson has a paper on the Study of the Microfungi. Besides these memoirs the volume contains much miscellaneous information excerpted from other works which will be of interest to microscopists and a good bibliography. The volume is a handsome one and reflects great credit both on the editors and on the publishers.

New Inventions.

WIRE-WOVE WATERPROOF ROOFING.

THE "wire-wove" roofing material consists of very stout and hard sheets of papier maché ingeniously combined with steel wire gauze, which both imparts great strength and effectually counteracts the tendency of the papier maché to become warped, bent, or buckled. It was devised by Mr. Douglas Allport eight or nine years ago, and its adaptability to other purposes than that of mere roofing was soon apparent. Experience has proved that a layer of it one-eighth of an inch thick is sufficient for all roofing purposes, as an unsupported sheet of that thickness will sustain the weight of several men. A special paint has been manufactured for painting the sheets and a means of thoroughly waterproofing it has been devised, together with a system of fastening by means of steel bands so arranged that any pressure upon a sheet is borne by the whole of the fastening nails at once. Buildings of this material are constantly being prepared for erection in various parts of the country, being made and partially set up at the works, then taken to pieces, re-erected on the required site, and finished. The material can be made absolutely non-inflammable. It may be mentioned that some of the older forms of roofing sheets made of organic materials were liable to be perforated by sparks from the chimney. For lining the interior of rooms wireless sheets of any required tint are used instead of wood or lath and plaster, and as they have a smooth, waterproof surface it is easy to wash the whole inside of the house—an obvious desideratum in the case of hospitals or wards for infectious disease. Unlike matchboarding, this kind of lining presents no chinks or crevices in which dust or germs may lie undisturbed and it may of course be painted any colour. The sheets for external use have a rough, finely sanded surface, free from the glaze of ordinary paint and having almost the appearance of terra cotta or stone. The governors of the Derby Royal Infirmary have adopted this construction for their temporary operating room and for an ophthalmic ward in their new hospital. A connecting corridor 140 feet long, raised on wooden trestles, is also in process of erection there. The manufacturers are the Patent Wire-Wove Waterproof Roofing Company, 108, Queen Victoria-street, E.C.

THE CASE OF MR. LIONEL SMITH.

WE have been requested by Dr. de Havilland Hall to acknowledge the following further contributions received by him:—

Mr. Simpson Ladell	£0	10	6
Dr. G. Fielding Blandford...	1	1	0
"A Tardy Subscriber"	1	1	0
Mr. Gilbert Barling...	2	2	0
Mr. E. W. Emtage	0	5	0
Mr. Frank Pearce	1	1	0
Mr. S. R. Platt, D.L. (per Dr. George Thomson)	5	0	0

WORCESTER GENERAL INFIRMARY.—The executive committee has decided to celebrate the 150th anniversary of the opening of this institution by a public dinner. Lord Coventry will occupy the chair. The committee has also resolved to recommend the governors to sell out funded stock sufficient to realise £2500, if the public subscribe a similar amount, to erect a nurses' home. Towards this sum Lord Beauchamp and Lord Hindlip have each subscribed £50.

THE VACCINATION QUESTION AT CHELTENHAM.—At a meeting of the medical men of Cheltenham held last week resolutions were passed urging the guardians to carry out the requirements of the Local Government Board, and suggesting that the public vaccinator should attend daily for the purposes of vaccination. These resolutions were read at the last meeting of the guardians, together with a letter from the Public Health Committee of the council. Dr. Hogarth, the public vaccinator, pointed out to the guardians that as infant vaccination had been allowed to lapse he was without a sufficient supply of lymph. He was accordingly authorised to procure a supply of calf lymph. The chairman pointed out that there was nothing compulsory in the matter, but it would give those who believed in the protection of vaccination an opportunity to have it done. Any residents of Cheltenham who have doubts about the efficacy of vaccination should study the statistics recently published of the outbreak of small-pox at Gloucester.

THE LANCET.

LONDON: SATURDAY, FEBRUARY 22, 1896.

IT is gratifying to notice on every hand indications of an uprising among medical men in their own defence. It has not come a moment too soon, and there is still much fear lest it be inadequate to the rescue of the profession from the many dangers and evils which beset it. But evidence of an awakening to the dangers is manifest everywhere. It would not be far wrong perhaps to connect this gratifying fact to some extent with the principle of direct representation conceded, although in an inadequate way, by the Legislature. It is impossible not to see that the working of this principle in the General Medical Council has not only stimulated that body to greater efficiency in the supervision of medical education, but to a greater energy in vindicating the purity of the Register and the sanctity of medical titles. And there are at length signs that the claims of the members of the largest corporation of the profession to a voice in the management of the affairs of their College may possibly ere long be recognised. The medical press must be credited with no small share of influence in the new era of life and power for the profession which seems to be setting in, and we are proud to think that THE LANCET has contributed not a little to the great result. The exposure by our Special Commissioner of the meanness of the various devices for sweating medical men and for turning their labours into a source of commercial profit has been complete. At the same time most encouraging has been his description of the movements set on foot in various places with a view to organising the profession with respect to the proper and considerate treatment of those of limited means and for a policy of refusal to attend on the same terms those who can afford to pay differently—such as the gentleman who claimed to be attended as an Oddfellow for 4*s.* a year although he was a manufacturer paying £600 or £700 a week in wages and took his recreation in hunting. In the same place, our Special Commissioner showed, such was the demoralising degree to which the club system had reached, that it included in its benefits a local brewer, a farmer, nearly all the publicans the druggists and the other tradesmen, the churchwarden, the organist, &c. Of course the demoralisation did not end with those gentlemen in their private capacity. It extended to the Board of Guardians, who proceeded to reduce the salary of the medical officer from £70 to £40. Such things are only possible in a profession which is not true to itself, and one chief outcome of all this exposure must be a strengthening of the discipline of the profession against practitioners who demean themselves by opposing their brethren when they make a stand against meanness and injustice whether inflicted by working men or by employers.

Though the evidence of this uprising of the profession is everywhere to be seen, though, in other words, it is largely local, it is finding expression in its great central societies and associations. The Medical Defence Union is the creation of a few years and derives much of its energy from the provinces. The British Medical Association can scarcely keep pace with the demands of its members for an enlargement of its functions and a greater assertion of its power. Its constitution, in the opinion of some of its members, is showing signs of advancing age, and they are disposed to try the infusion of some younger blood into its veins. Whatever should be the decision on this point, there is room enough in the expanding profession for both the old and the young associations. We are opposed to needless multiplication of associations, but the Medical Defence Union has so justified its existence and has met so specific a want in our perilous profession that a very strong case should be made out for parting with its individuality. There can be no manner of doubt, however, of the wisdom of the fusion of this body with the London and Counties Medical Protection Society. Two separate and distinct associations for the purposes of medical defence are certainly superfluous and, moreover, apt to be misleading with respect to the solidarity of the profession.

After all the use of these bodies is only general and occasional. The real salvation of the profession must come from its members acting together in their respective localities. Nothing has come out more plainly in our special reports of the Battle of the Clubs than the impossibility of applying hard-and-fast rules everywhere. The profession must act locally, and in order to do so it must have local organisations for laying down rules of conduct, making local provisions to meet the case of the working classes without destroying their independence or compromising the dignity of medical practice. The associations of the profession can help greatly. The great corporations of the profession must be appealed to for the use of their disciplinary powers. The medical council will make still further discoveries of its duties and its powers. But if such examples as those of Portsmouth and Eastbourne are followed everywhere there will be little for central associations to do. The great thing is to act with a sense of proportion and moderation, yet with firmness, and never to forget the scientific basis of the profession and of its reputation. No methods of practice can be right which do not take this consideration into account.

THE fifty-seventh annual report of the Registrar-General, just published by Her Majesty's Stationery Office, on the births, deaths, and marriages in England and Wales during 1894 is an interesting document in more than one respect. For, in the first place, it records a higher standard of public health in England and Wales for the year 1894 than has been attained in any year since the commencement of civil registration; and, in the second place, the volume is more complete and apparently more systematically arranged than its predecessors of recent years have been. It also contains certain new features which indicate that Somerset House means to emulate Whitehall in the attempt to promote the study of State Medicine among the members of our profession. The death-rate in 1894 was considerably lower than in any previous year on record—it was only 16·6 per 1000 of the population, and was consequently below the average rate

for the preceding ten years by more than 13 per cent. In three years only prior to 1894 had the all-England death-rate fallen below 19 in a 1000. The lowest death-rates prevailed in the home counties, and the highest—in no case reaching 19 per 1000—in the manufacturing and mining districts of Durham, Lancashire, and North Wales. In the year 1894 the death-rates at the several age-periods were not only considerably below the mean rates in the previous four years, but were also lower than even the exceptionally low rates of 1888 and 1889. The proportion of infant deaths under one year to registered births did not exceed 137 per 1000, which was lower by 10 per 1000 than the decennial average rate. At all ages of both sexes under forty-five and above seventy-five years the 1894 death-rates were the lowest on record. The mortality in the urban as well as in the rural parts of the country was likewise the lowest hitherto known, the rate in the urban districts being 15 per cent. and that in the rural districts 11 per cent. below the corresponding average rates in the ten previous years. Taking together the seven common zymotic diseases the mortality to which they gave rise in 1894 was lower than in any previous year except 1888. Compared with the average rates in 1884–93 the mortality from every one of the common infectious diseases excepting diphtheria showed a decline. There was a still further reduction during the year 1894 in the mortality attributed to influenza, the rate being equal to 220 per million living, as against rates of 574, 534, and 325 per million in the years 1891, 1892, and 1893 respectively. Amongst constitutional diseases cancer still seems to be gaining ground in England, as many as 21,422 deaths having been referred to it in the year 1894. These deaths give a rate which is the highest hitherto registered. On the other hand, the deaths from phthisis were relatively fewer in that year than in any previous year since 1837.

Referring to the tabular portion of the report we notice several changes which will assuredly be welcomed by those who take special interest in vital statistics. For example, some of the tables appear to have been simplified and rearranged, and the type of a few of them has been considerably improved. This is a process which we hope to see considerably extended in future issues, for there are still many of the tables so heavily set and the type of which is so small that the figures can only be made out with considerable difficulty. In the year 1881 a new system of classification of causes of death based on the nomenclature of diseases prepared by the Royal College of Physicians of London was adopted in the Registrar-General's reports. The change involved many important modifications of the tabular matter, and we observe that in arranging the details of the tables 17 to 22 of this volume, the death-causes published in the reports prior to 1881 have been as far as practicable re-classified so as to be for the most part comparable with the figures for subsequent years. There still remain, however, a few diseases included in these tables in respect of which no satisfactory adjustment has been found possible. The tables here referred to appear to be either entirely new or to have been so greatly modified and extended as to bear but little resemblance to anything that has appeared in former reports. They show the deaths and death-rates from an extended list of diseases for each of the last twenty years, and for "persons" as well as for males and females separately (this is an entirely new feature); and we notice that, with the object of avoiding error, the deaths and the death-rates, severally, are printed in distinctive type, an arrangement which statisticians, official and otherwise, will not be slow to appreciate. At page lxxiv. will be found an appendix to the above-mentioned tables showing in detail particulars of the changes necessitated by the new classification adopted in 1881. It also shows under what headings diseases may now be found which had been classified after the old method in the shorter and supplementary tables of the earlier reports. This appendix is a most useful innovation and will greatly enhance the value of the new tables, which without such explanation would have been difficult to understand except by the initiated.

THE position of the question of the representation of the Members of the Royal College of Surgeons of England on the Council has assumed a very interesting aspect. For several months a committee of the Council, called the Deputation Committee because it was originally appointed to receive deputations from the Fellows and Members of the College, had been pursuing its deliberations. It received a deputation from the Association of Fellows of the College, which formulated several important points of reform which have been published in the columns of THE LANCET, and it received another deputation from the Society of Members of the College, which also formulated its requirements, and these have also been published in like manner. The report of the Deputation Committee to the Council has more than once been postponed. The last cause of delay was the reference of the resolution passed at the annual general meeting of Fellows and Members in favour of giving to the Members of the College eight representatives on the Council to the half-yearly meeting of Fellows for discussion. This resulted in the adoption by the Fellows in meeting assembled of the historical resolution affirming the desirability of according to the Members of the College direct representation on the Council, and this resolution was referred by the Council to the Deputation Committee for consideration and report in connexion with the other matters already before it. Virtually, we believe, the report of the Deputation Committee amounted to a *non possumus*. It adopted none of the recommendations of the deputations from the Fellows or the Members, and assumed an attitude of passive resistance to the resolution passed by a majority of six or seven to one in a meeting of eighty-one Fellows of the College—the largest and most influential meeting of Fellows which has yet been held. This report, of course, was the report of a majority of the committee, the minority having to oppose its adoption by the Council. In this their efforts were successful. The report was received, but we understand that an amendment was carried to the effect that the report of the deputation be not adopted, but that a poll of the Fellows be taken on the question of the direct representation of the Members of the College on the Council. The division was a very close one, and when the amendment became a substantive motion another amendment was moved: "That before a poll of the Fellows is taken the Council do take into consideration at an early meeting the question whether Members should

or should not be represented on the Council." This amendment was carried by the same narrow majority by which the original amendment to the report of the Deputation Committee was adopted.

From these proceedings it may be gathered that opinion in the Council is very evenly balanced upon the main question of the representation of the Members of the College upon the Council. The loss or gain of a vote on either side may turn the scale. Of the ultimate result there can be no doubt, but the final solution of the question may be delayed if the opposing elements in the Council should temporarily preponderate. This would be a source of sincere regret to us, because the time is most favourable for a settlement. The attitude of the Society of Members has been everything that could be desired. They have contented themselves with thanking the Fellows for passing the resolution and are awaiting in dignified silence the issue of the deliberations of the Deputation Committee and the Council of the College. They are desirous to aid in every way in the establishment and maintenance of harmonious relations between the Council and the Fellows and Members, and if they do not command success not even their most vehement opponents can deny that they have deserved it.

Annotations.

"Ne quid nimis."

THE DIRECTION OF THE ARMY MEDICAL SERVICE.

THERE is a good deal of speculation at the present time as to who is to be the successor to Sir William Mackinnon, the present Director General of the Army Medical Staff, when he vacates that post in May next. It cannot be otherwise than that this should be the case with the officers of the department chiefly concerned, for they must realise that everything depends upon the right man being selected. But looking to the present political aspect of affairs, and to the vast and complicated nature of the relations of this country—with its various colonies and dependencies—with foreign powers, the settlement of this question is one of much public interest. No one can forecast what may happen within the next few years, and it is certain that in any future war every department will be subjected to a greater strain and to a severer test of public criticism than has been heretofore the case. The direction of the Army Medical Department is at all times an onerous undertaking, and the difficulties and responsibilities of the position are certainly not diminishing. What is wanted, then, at the present time especially, is that the best and most capable man shall be selected for the post of Director-General; that he shall, in other words, owe his appointment to his merits—his ability and intellectual qualifications, his character for honesty and impartiality, and the confidence that he has won for himself in these respects. That high official positions have not always been attained by the possession of qualifications of this sort, but by interest or by the nominees of some patron or other to whom they have made themselves officially or socially agreeable or useful cannot, we suppose, be denied. We are, of course, quite aware of the fact that no one with independence and force of character, however just and honest of purpose he may be, can worthily occupy and discharge the duties of such a post and escape unfavourable criticism; but we do hope that on the present occasion a sincere attempt will be made to select the fittest man. Lord Wolseley, the present military head of the army, has publicly announced that all his efforts will be directed to making the army a thoroughly efficient fighting machine, and to selecting the best men for that purpose. Two names have been prominently mentioned as successors to Sir William Mackinnon—viz., those of Surgeon-Major-General H. F. Paterson and Surgeon-Major-General J. Jameson. We have purposely abstained from noticing this subject up to the present time in order that we might institute some independent inquiry of our own in different directions. We may say that the result has been to convince us that both have the reputation of being good officers, each of them having, of course, his own particular friends and admirers. Surgeon-Major-General Paterson, who is Principal Medical Officer at Aldershot, is the senior and is very popular, and, in our opinion, deservedly so. One of the main reasons why medical officers desire to see him promoted to the direction of their service is that he has not served in "the office," meaning by that the head quarter office of the medical department, and that he would consequently bring a perfectly independent mind to the introduction of any reforms he deemed necessary and to the duties and work he would be undertaking. He is an officer with plenty of physical and mental energy and has the reputation of being a man of tact and sound judgment, and in present touch with the service and the practical requirements of the soldier. It is but right to add that both the officers we have named have a high reputation, but the senior in point of service—Surgeon-Major-General Paterson—is, apart from that, best fitted, in the opinion of the medical department, for the post of Director-General, for the reasons we have given.

THE COMPARATIVE NUTRIENT VALUE OF MEAT PREPARATIONS.

SOME correspondents have directed our attention to an article which appeared in *Food and Sanitation* of Dec. 14th, 1895, a journal usually bristling with sensational headings, in which our analysis of a certain meat preparation is impugned. The article is drawn up in the "look on that and on this side of the picture" style. Thus, Valentine's meat juice is stated to be merely "an ordinary meat extract diluted with water, but as far as nutrient value goes the water in which dinner-plates are washed would be about as valuable." Bovril, on the other hand, is spoken of as "a real invalid meat food" in which more has been achieved than the editor of *Food and Sanitation* thought was possible, and on this account we are to have at once a Ministry of Public Health. We make no objection to the laudatory remarks about bovril, as we have reason to believe that of its kind it is an excellent nutrient, but it is of quite a different order from a meat juice that is expressed in the cold; indeed, the two preparations are not comparable. A meat juice expressed in the cold contains the soluble nutrient substances of beef, amongst them being albumin, certain proteids, and hæmoglobin. When such a preparation is heated, therefore, the albumin coagulates, while the clear solution also contains other proteids of nourishing value. Gelatin does not enter into the composition of meat juice expressed in the cold to any appreciable extent, since treatment with hot water is required to extract it. It is present, therefore, to a much larger extent in ordinary extracts. We care not whose preparation is under consideration; so long as it is meat juice expressed in the cold it must *a priori* be a powerful nutrient, depending, of course, upon its degree of concentration. To take one of the inevitable constituents, albumin is able by itself to support the vital processes, and, as Dr. Burney Yeo observes, is the only alimentary substance that can do so. According to a recent analysis of Valentine's meat

juice it proved to contain 53·30 per cent. of nitrogenous substances in solution, of which exactly a half consisted of matters (proteids, &c.) precipitated by alcohol, and the rest of meat extractives, crystalline principles, &c. Of the matters thus precipitated 1·5 per cent. is pure beef albumin, which is coagulated also on heating the juice. The diluted juice, viewed by the spectroscope, shows the spectrum of hæmoglobin very distinctly. The sample was purchased at the Civil Service Stores, Bedford-street, Strand, by ourselves. Our opinion of this preparation is therefore unaltered, and we are satisfied that what was stated in THE LANCET of Dec. 28th, 1878 — namely, that this preparation was valuable both as a stimulant and food—is perfectly true and justified by analysis, and, what is better, by clinical experience. We challenge *Food and Sanitation* to appoint with our approval an analyst of well-known repute to undertake an independent analysis and publish it, and place it side by side with the one upon which is based the remark that the wash of dinner-plates would be almost as valuable as the meat preparation to which he alludes. We have not the least doubt that this remark would not be thereby substantiated. We should not have referred to the matter at all again but that copies of this article have been distributed broadcast amongst the medical profession, to whom it is a matter of vital importance, of course, to know whether, especially in the treatment of invalids, such preparations may be relied upon. Apart altogether from chemical analysis our readers know from the evidence of experience that meat juices expressed in the cold are of eminent service in the sick and invalid dietary. To condemn such preparations displays a woeful and wilful want of knowledge of common physiological requirements. Oddly enough, in an article on infants' foods in the same issue of this "public analytical journal" THE LANCET is quoted as affording favourable testimony to the merits of a certain malted food which, in the opinion of the editor of *Food and Sanitation*, is ideal and not open to defects which he finds in numerous others which are mentioned.

UNSUCCESSFUL PROSECUTIONS UNDER THE MEDICAL ACTS.

THE Medical Defence Union, which has done so much good with very inadequate Medical Acts, has sustained two reverses at Cardiff which we trust will not be allowed to go unchallenged. The first was in a case against "Dr." Bridgwater, M.D. U.S.A. The stipendiary held that as in every circular put in the defendant was described as "Dr." Bridgwater, M.D. U.S.A., he could not be held as implying that he was a registered practitioner in the United Kingdom. In the opening statement for the prosecution it was said that in some of the circulars the letters U.S.A. were omitted. If this were so, why were these circulars not forthcoming? Apart from this question, the decision of the stipendiary differs from that in a recent case in London, in which, on appeal, it was argued that the letters U.S.A. were a proof that no fraud was intended. But this did not save the quack Ferdinand from a fine of £20. Clearly the *onus probandi* should rest with defendants in such cases. Moreover, it may be pointed out that the letters U.S.A. have no meaning and in themselves excite suspicion. What would he thought of the title, M.D. United Kingdom? As regards the case of the woman, Eliza Foster Macdonogh-Frickhart, charged with wilfully and falsely pretending to be a doctor of medicine, the decision of the stipendiary raises questions of both fact and law. Her counsel argued as if she was temporarily off the register from a mere change of address. On the contrary she was charged[1] before the General Medical Council with endeavouring to obtain practice, &c., by unworthy means, &c., and attracting practice by a system of public advertisements discreditable to a registered medical practitioner. After ample notice she did not answer to her summons. The Council found that she had committed the offence charged against her, that it was infamous conduct in a professional respect, and directed the Registrar to remove her name from the Register. She remains, we presume, M.D. of Zürich. The stipendiary thought that once a doctor always a doctor. But he went further, according to the report in the *South Wales Daily News*, and said: "There is no suggestion here that there is any attempt to mislead the public in any way, because the lady is duly qualified." How can she be qualified when she has been removed from the Register, and that for infamous conduct? Clearly the Medical Defence Union must not leave these cases as they have been left by the decisions of the Cardiff stipendiary.

[1] See Minutes of General Medical Council, May 22nd, 1894. Vol. xxx.

CHOLERA IN EGYPT FROM A FRENCH POINT OF VIEW.

WITH reference to the recent occurrence of cholera in Egypt a writer in *Le Temps* expresses himself as follows:—"Some months since cholera burst forth in the province of Damietta; ought we to look upon the outbreak as a serious one? No! Is it of a nature to justify the fears that are habitually entertained whenever the pestilence makes its appearance? By no means! The present epidemic bears no resemblance to the ill-omened epidemics of former years. The characteristic accompaniments of malignant cholera, such as panic, stampeding *en masse*, the successive and progressive contamination of village after village, of palace and farmhouse alike, the sudden and increasing mortality in every populous centre, the lugubrious processions towards the cemeteries, all are absent; nothing whatever has arisen to threaten the well-being of the beautiful country which the Nile so abundantly fertilises. The cholera at Damietta is happily a benign cholera." Commenting upon the above *Le Progrès Médicale*[1] says: "At the time of writing there are seventeen cases of cholera in Egypt. This is a trifle when we reflect that some twelve years ago 800 persons used to be cut off daily by the epidemic which then prevailed, and that in the course of a single week 40,000 fugitives left Cairo. Amongst the 1034 cases which have been reported since the disease made its appearance last October there is not a single one referring to a European. The native population alone, badly fed, badly cared for, and badly housed, has been attacked. The absence of hygiene is solely blamable seeing that the white inhabitants living under better conditions have remaind intact. Specimens of water from all the canals in the vicinity of the contaminated province were recently analysed at Alexandria, and all were declared to be perfectly pure, wholesome, and free from noxious germs. The epidemic is consequently by no means a grave one, and intending visitors have no reason to be alarmed. It is nevertheless indispensable that the sanitary commission should make an end of this inoffensive cholera as soon as may be and completely, for should one single case be still in existence in April next, when the great heats are at hand, it might readily become the source of a widespread calamity with which it would then be impossible to contend." We need scarcely inform our readers that the Quarantine Board so ably presided over by an Englishman, Mr. Walter Miéville, C.M.G., and known officially as the *Conseil Sanitaire, Maritime et Quarantenaire d'Egypte*, has nothing whatever to do with the internal sanitary affairs of the country. All that concerns the stamping out of epidemic disease within the limits of Egypt itself is in the hands of the Sanitary Administration, of which Dr. Rogers Pasha, D.S.O., is the very

[1] Jan. 25th, 1896.

efficient director, and which has its headquarters at Cairo. No doubt the present outbreak is a mild one, although the mortality according to the last account—that is, 955 out of a total of 1148 cases treated—does not lend itself to that view; but, at the same time, it is only fair to conclude that the well-directed labours of Dr. Rogers and his energetic assistants have had an influence in preventing the spread of the epidemic. The sanitary officials have not sounded the trumpet, being reticent, after the manner of Englishmen regarding their own achievements; but from our own correspondent's letters and other sources of information it is evident that unceasing vigilance has been the watchword night and day. The results so far are most encouraging, and there is every reason to hope that before long the disease will be thoroughly stamped out. The fact that panic has been so completely absent on this occasion, both among foreigners and natives, clearly shows that the inhabitants of Egypt have confidence in their sanitary defenders.

"UNFIT FOR HUMAN FOOD."

IT is in some degree a consequence of the very ease and liberality with which this country is provisioned that our food-supply should be liable to suffer somewhat in quality. Excess, like poverty, clearly tends to this result, and thus it happens that the honest vendor of perishable substances like meat or fish is a frequent, and even at times a heavy, loser. We can, therefore, easily understand the temptation to which those are exposed whose lot it is to make a living in spite of such loss. Their proneness to err is increased, moreover, by the fact that they are not always themselves competent judges of quality, especially when their decision must be made between merely anatomical alterations and some of the more subtle morbid processes. A few days ago a meat salesman was prosecuted at Worship-street Police Court for having sold the carcase of a cow which was unsound and unfit for human food. The alleged offence does not seem to have been discovered until after the carcase had been disposed of to a sausage-maker. It can readily be understood how mischief of a serious kind might arise from such culpable mismanagement as is suggested by this transaction. In such a case little comfort can be derived from the plea of ignorance. Whether this may or may not suffice to excuse a salesman, it clearly affords no protection to his unsuspecting customers. The intervention of the authorities in the present instance came not a whit too soon, possibly somewhat too late to be fully effective, and the incident is to our mind strongly suggestive of a lack of duly careful inspection of the meat both at the time of killing and while it was for sale in the market.

THE VACANCY IN THE PORTSMOUTH BOROUGH LUNATIC ASYLUM.

FOR some weeks past the press of Portsmouth has been giving circulation to rumours that the medical superintendent of the Portsmouth Borough Asylum was about to resign from ill-health, and that the Asylum Committee intended to advise that without advertisement the post should be offered to the medical officer of health. The rumours have now been verified. The committee has unanimously advised the appointment to the asylum of the medical officer of health, and almost unanimously advised that the salary be what it is now at the end of the present medical superintendent's service—£600 a year. The asylum committee instead of finally deciding the election—as they have the power to do, subject to the consent of the Lunacy Commissioners—have determined to throw the responsibility on the whole council. We think this the wise part of their action. The asylum contains 560 beds. If there is anything in specialism it is in this department of disease, which until very lately has been practically ignored in the education of medical men. It is clearly due to the unhappy inmates of asylums to give them the advantage of a medical chief who has had special experience of mental diseases. This is too obvious to be argued. An appointment of this kind should not be made without advertisement and without care to select the best among a number of candidates. The whole proceeding is unintelligible to us. The medical officer of health is one of the most respected officials in that capacity in England. It is said he deserves promotion. We entirely believe it. But is it promotion to put him out of an office which he fills so well into one for which he has no special fitness? He will only gain £50 a year by the change. Is it kind to him for this paltry sum to put him into a false position and a strange office? We cannot see it. Let the Corporation of Portsmouth reward him by increase of salary, which he well deserves, but do not let them make an incongruous appointment. We appeal confidently to the medical officer of health in this matter. He belongs to the sanitary side of the profession—so specialised that by Act of Parliament no one can be appointed to his office without special experience or a special diploma. Surely the members of such a close department of medicine will be the last to deny that there are branches of medical work which demand special experience, and that lunacy is one of them. We cannot think that this question will ever reach the Lunacy Commissioners for settlement. The council of Portsmouth will hardly endorse the advice of its Asylum Committee.

THE SANITARY CONDITION AND ADMINISTRATION OF LAMBETH.

THE sanitary state of Lambeth has been weighed in the balance by the London County Council and found wanting. Dr. Hamer, the senior assistant medical officer of the Council, has made a very thorough inspection of the district, and in the report which he presented thereon to the Council has laid bare sins of omission on the part of the Lambeth Vestry. The parish in question had at the last census a population of 275,203, Islington with a population of 319,143 being the only metropolitan sanitary area exceeding it in this respect; in fact, Lambeth ranks seventh in point of population among all the sanitary districts in England. In speaking of Lambeth, however, it is necessary, Dr. Hamer tells us, to differentiate between the southern portion where a population under comparatively easy circumstances resides, and a northern portion nearer the river, where reside the poorer classes who have been less fortunate in the struggle for existence. In these two districts there is, as would naturally be expected, a very material difference in sanitary condition; indeed, as Dr. Hamer shows in his report, there obtains an almost uninterrupted decrease in the matter of overcrowding as one proceeds from the river southwards. The number of persons in the several sub-districts of the parish ranges from 209 to 25 per acre and the houses from 23 to 4. Viewed from the standpoint of two districts, an inner comprising the four sub-districts nearer the river and an outer comprising the four more remote, it appears that the inner district had at the 1891 census a population of 85,847 and a density of 167 persons per acre, while the population of the outer district amounted to 189,356 with a density of but 55 persons per acre. Again, Dr. Hamer shows that taking Lambeth as a whole 15·87 per cent. of the population live under the conditions of "overcrowding," while the corresponding percentage of the four inner sub-districts is 31·75. It seems, too, that the percentage of overcrowding in these four sub-districts was in 1891 only exceeded in nine other of the forty-one sanitary districts of London, and the result of Dr. Hamer's inspection shows

that overcrowding in Lambeth is much in excess of that which he found in Whitechapel and Mile End Old Town. Dr. Hamer visited as many as 1000 different sets of premises in Lambeth, and he seems to have made very careful notes of the conditions which the inspections revealed. Out of 796 dwelling-houses occupied by the working classes he found defects in no less than 519, i.e., 65 per cent., a percentage in excess of that which he detected in his previous inspections of Whitechapel and Mile End Old Town. It is unnecessary to enter into the details of the defects save to remark that the vast majority of them were capable of easy remedy. In the course of his inspection Dr. Hamer observed that a large number of the premises visited had not previously been inspected by the district sanitary inspector; in other words, nothing approaching a system of inspection, such as is made incumbent upon the sanitary authorities by Section 1 of the Public Health (London) Act, 1891, had apparently been attempted. As regards workshops Dr. Hamer reports that no systematic attempt was made by the vestry to deal with the inspection of those places or to carry out the outworkers' order. The number of inhabitants to each sanitary inspector is in North Lambeth upwards of 50,000, and it is perfectly obvious that nothing approaching a properly organised inspection of a district can be effected with a staff of these proportions. As Mr. Shirley Murphy points out in his introduction to Dr. Hamer's report, "a complete re-arrangement of the sanitary administration is undoubtedly needed." The Lambeth Vestry has not taken the inspection of the London County Council in anything approaching a spirit of humility, and they have now attempted partly to discredit Dr. Hamer's report, and partly to justify themselves, but the attempt has in neither case been successful. Mr. Shirley Murphy has replied to, and disposed of, the vestry's comments, and it is to be deplored that the sanitary authorities should have resorted to such schoolboy excuses as, that they are no worse than their neighbours and that other districts besides theirs have failed to provide a shelter. We quite agree with Mr. Shirley Murphy that the vestry have failed to show any inaccuracy in Dr. Hamer's report.

PROFESSIONAL CRIME.

WHAT to do with our criminals has always been a *vexata questio* and will be, we fear, for yet awhile. Any attempt, therefore, to solve the problem should receive careful consideration. Much may be said in favour of the system adopted at the Elmira Reformatory in the State of New York, where prisoners are kept until they are morally, intellectually, and physically capable of earning a living when they are discharged. This system, however, *per se* can only be successfully adopted in the case of those who have a moral sense of wrongdoing and are capable of reformation, otherwise much can be said against it. It can in no way benefit the habitual criminal, and this is the very class in dealing with which the most serious difficulties are met. With reference to this class Mr. R. Anderson, C.B., has an able article in the current number of *Blackwood's Magazine*. He starts by propounding the question, "Why do we imprison our criminals?" and answers it by asserting that no transcendental obligation to punish wrongdoers is recognised by our law as nowadays administered, and that the main consideration with the judge is not the guilt of the criminal, but the need of the community. He then proceeds to argue that habitual criminals should be dealt with by the State in a manner similar to that in which it has dealt with infectious diseases—namely, by removing or checking the causes which tend to produce or spread the disease, patients being isolated until they can mingle again with their neighbours without danger to the public health. Mr. Anperson pleads that the same enlightened principles which now obtain in regard to sanitation may be applied to crime, and advocates the dealing with such criminals as have proved themselves to be morally incapable in a way similar to that in which we now treat lunatics, keeping them under perpetual observation and restraint until cured. That our present methods of dealing with criminals is sadly in need of some reform there can be no doubt, and granting that the welfare of the community is the ruling factor in the problem under discussion the plan suggested by Mr. Anderson is at least logically sound. With the suggestion that the antecedents of all prisoners should be fully gone into and the sentence tempered accordingly, we are in full accord. The whole article will repay careful perusal. Dr. Nathan Oppenheim in the *Popular Science Monthly* (New York) has a thoughtful paper on the Stamping-out of Crime. He asks for the complete isolation of the criminal in order that he may be prevented from perpetuating his species. One of the best indications for hope, he thinks, is the growing effort to study crime accurately, not merely to regard it as an excuse for confining lawbreakers in self-infecting herds, but to seek for the causes of crime, to ascertain all its concomitant conditions, to recognise and classify the criminal in sociological, psychological ways—in the ways of anatomy and physiology.

OUR LIMITED VISION AND THE NEW PHOTOGRAPHY.

WHEN Mr. Samuel Weller on a memorable occasion said, "But, you see, my wision's limited," he uttered a profound and a general truth which at the present time is being very keenly felt and realised. The discovery of the "x" rays is mainly responsible for this. Now that it has been shown that it is possible to take photographs with "dark light" it is obvious that we must attach a deeper and a much wider meaning to the word light than has hitherto been ordinarily understood. The fact is, to paraphrase Mr. Weller's expression, the eye is able to see very little. It can appreciate and turn to account in producing an impression upon the retina but a very limited proportion, barely more than an octave of the waves or vibrations that may actuate the ether or medium which pervades all space. The ear is a more sensitive instrument for sound-vibrations, since most people can appreciate the notes within the compass of a piano, but even here there must be a limit. Some persons cannot recognise the extreme top notes or rapid undulations until the tension of the strings is reduced, when the note is appreciated, having been brought down to the level of the ear's capacity and the vibrations reduced in frequency. In the same way the photographic plate has brought within our vision countless stars which the eye even aided by the telescope fails to see. The sensitive plate, in other words, records infinitely more than the eye, and this property is utilised to bring things within the range of human vision. So is it with the "x" or Roentgen rays, and doubtless there are other rays which have a greater penetrative power. Opacity is, indeed, a phenomenon existing merely for an eye like ours, which if constructed a little differently would enable us to see easily through walls. Perhaps it is a wise provision that it is not so. The fact that photographs may and have been taken with no apparent source of light at all appears to be due to the property of probably most things, of absorbing certain rays and giving them out again in the dark. Thus, if a transparent photographic proof has been freely exposed to the light and then taken into the dark room and placed over a sensitive plate for some time the plate on development will give a distinct negative image. The same thing is illustrated in a stronger manner in luminous paint, which absorbs

light and gives it out again so that it is visible to the eye in the dark. We have heard some people assert that on reading a paper closely in a railway train which is just rapidly entering a railway tunnel they are enabled to read on for quite a few seconds or so in spite of the darkness. This, however, may be persistence of impression, but it is quite possible that it is due to the paper giving up the light which it has absorbed. The photography of substances embedded in the hand or knee by means of the "x" rays has now become quite a common accomplishment, affording an aid—although it must be confessed a limited aid—to surgical exploration with the view of extracting foreign bodies. Several well authenticated cases of the sort were reported this week at home and abroad. But it is evident that the conditions of the experiment must be vastly improved before the "x" rays can be brought successfully to bear upon surgical operations. Some means of concentrating the rays are wanted, and the time of exposure is necessarily and inconveniently long, according to the degree of thickness of the part operated upon. During this time the Crookes's tube frequently breaks down, and the exposure of a patient keeping perfectly still for, say, three hours is almost an impossible ordeal. We do not despair, however, that the method will undergo improvement which will bring greater convenience to the operator and comfort to the patient. We referred last week to the discovery of Professor Salvioni of the University of Perugia, who, it is reported, has been able to make directly visible the bones of the hand by means of the "x" rays. His procedure appears to be to interpose the object between the source of the rays and a screen capable of being made to phosphoresce, so that the rays which get through actuate the screen to emit light while where the rays are absorbed or stopped as by the bones a clear and true shadow is produced. Such a substance apparently is the platino cyanide of barium. How the screen is conveniently viewed is, however, not quite clear, but we apprehend that further details will be soon forthcoming in regard to the construction of this apparatus, which has received the name of "cryptoscope." It is in this direction, we think, in which the application of the "x" rays may become of signal service. In the meantime it is pretty clear that our views of the nature of light must soon undergo considerable modification. There seems little doubt, however, that the new phenomenon belongs to electricity rather than to light.

MR. JUSTICE GRANTHAM ON VACCINATION.

THE epidemic of small-pox at Gloucester, although not attaining any great proportions, has in more ways than one been a serious check to the prosperity of that city. The county assize has been held at Cheltenham instead of at Gloucester, upon the representations of Mr. Justice Grantham to the Lord Chancellor. The judge had been appealed to to close the public galleries in the court at Gloucester and allow none but those actually engaged to attend the assize owing to the prevalence of small-pox; but he preferred the wiser and more logical course of removing the business of the county assize to a town where the numerous persons summoned to attend would not be exposed to the risk of contagion, a course for which there were precedents. "There was," he added in his address to the grand jury at Gloucester, "another reason which operated in his mind in leading him to take the steps he did, and that was the knowledge communicated to him that Gloucester was one of those towns where, unfortunately, dwelt a great many people who, for the want of a better term, were known as 'anti-vaccinators,' and who resented the desire, as generally expressed in the country, that all children should be vaccinated. When he heard that the local authorities in Gloucester refused to compel people to have their children vaccinated he thought it desirable that the step in question should be taken. The result was that in Gloucester there must be a great many people, children and parents, who were unvaccinated. Under the circumstances they had the food in the town for disease, and they could never tell where and when it would break out; it was not the usual state of health that they would find in a town where vaccination was carried out." In addressing the county grand jury on the following day at Cheltenham Mr. Justice Grantham again explained his reasons for changing the venue, and hoped that "if this had no other result it would make the people of Gloucester think again of the position in which they had placed their town by the unusual course adopted of not enforcing the law. It had been proved to demonstration over and over again that, although vaccination did not bring about complete immunity from small-pox, in the majority of cases it did, and that even when people had small-pox when vaccinated they almost invariably had it much lighter. The introduction of vaccination was one of the greatest blessings God had given to this country, for it had saved the country from the decimation of its population which happened years ago and which was still the case where vaccination was not in force." We commend this outspoken opinion to the consideration of those persons who are so readily influenced by the unfounded and exaggerated statements of the anti-vaccination propagandists, whilst in Gloucester itself the lesson cannot fail to be taken to heart that neglect of recognised precautions to avert small-pox entails not merely much physical suffering but—and this is often a stronger argument still—financial loss.

A QUACK DOCTOR WITH "ONE OR TWO ASSISTANTS."

THE people of Liverpool will not be much pitied if henceforth they believe too much in so-called "dispensary doctors." They will do well to demand the name and qualifications of such gentlemen. The history of one person—Thomas Rowland Townson—who was regarded as a "dispensary doctor," but who withheld his name from patients and contented himself with labelling his premises "Dispensary" with hours of attendance—is quite a little novel in its way. It shows how, without a medical title, a man may succeed in conveying to the public—at any rate, to the poor who employ him—that he is a regular practitioner and thoroughly qualified. This was the impression produced on the deceased, Tom Phelps—the circumstances of whose death were investigated last week by the deputy coroner of Liverpool, Mr. Gibson—and on all his friends. The cause of death was found post mortem by Mr. Foulston to have been abscess of the right lung. A verdict of "Death from natural causes" was brought in, but the foreman said the jury thought the "so-called medical man should be censured very severely if the law could not touch him. Such people ought to be put down." Of course they ought; if public prosecutors did their duty they would have been put down long since. The coroner acted in accordance with the wishes of the jury, and administered a very severe rebuke. But in the present state of the law there is no security that Townson will not soon resume his practice and have a principal, as he sometimes seems to have, or even "one or two assistants," as he had when he carried on quite a large practice for ten or twelve years at Everton. This was not the first time he had been before the coroner. He remembered being so in 1892. Since then he has been in London. He was by no means confined to medical practice. He had been a commercial traveller, a purser's clerk, and also engaged in the corn trade. But though far too able a man to be restricted to one profession,

the dispensary business was his favourite one, and when he was unfortunate in business in London he readily returned to Liverpool "at the request of a well-known medical man who wanted him as an assistant." He took to the dispensary business again to get a living and "as it was one of those businesses which could be started without any money." The reason he gave for withholding his name from patients was that "a gentleman was about to join him in practice whose name would be put up." Such revelations as these ought to facilitate the amendment of the Medical Acts. The coroners of the country would do well to forward accounts of all such investigations to the Home Secretary.

YELLOW FEVER AT THE CANARY ISLANDS.

THE medical authorities of the Canary Islands have issued a proclamation announcing the infection, by yellow fever, of Palma, one of the group. No vessel from there will be allowed to communicate with any of the other islands. This decision was arrived at in consequence of the following facts. A Spanish vessel coming from Havannah, having had three fatal cases during the voyage, was placed under observation for three days at Palma, where most of the passengers intended to disembark. During this period another death from yellow fever took place on board, whereupon the authorities ordered the captain of the contaminated ship to proceed to Vigo in order to undergo regular quarantine. The passengers on hearing this disagreeable news at once mutinied, and, being 800 in number, succeeded in making good their landing notwithstanding the opposition of the island police. It is not stated whether any steps have been taken to inflict punishment on the mutineers.

THE LONDON COUNTY COUNCIL AND THE WATER BILLS.

SOMETHING definite has at length been done by the London County Council in regard to the Water Bills, and a resolution which failed to be carried nearly six months ago by a majority of one has now been passed, strangely enough, *nem. con.* In effect this is a step towards the acquirement by purchase of the water companies' undertakings, and, of course, the Staines storage scheme will be strenuously opposed. The report of the Joint Parliamentary and Water Committee—the keynote of the resolution—contained the recommendation, "That notice be given of the second reading of the New River, Chelsea, Grand Junction, East London, West Middlesex, and Kent Waterworks (Transfer) Bills, but that the House of Commons be asked to consent to the adjournment of the second reading; and that, in the case of the Southwark and Vauxhall and Lambeth Waterworks (Transfer) Bills the reference to a committee of the House of Commons be deferred." The question of deriving a fresh supply further afield is down for discussion next week, when the Welsh scheme will be submitted. This debate should be instructive and will be looked forward to with keen interest.

"ANTAGONISM" TO SMALL-POX, BY PROPHYLAXIS AND BY RIOT.

A LETTER addressed to a correspondent in the anti-vaccination city of Gloucester by Mr. Edgar Crookshank expresses the opinion that vaccination has a transient antagonism to small-pox, but the writer adds that his advice as to coping with the disease, which is epidemic in the city, is "Isolate, isolate, isolate." Now it appears that in Stroud, which, like Gloucester, contains many who, pending danger from actual small-pox, have professed disbelief in the protective or "antagonistic" value of vaccination, an attempt has been made to "isolate" instead. The result has been disastrous. As the ambulance containing the first small-pox patient was passing through Bisley to the hospital, which is extremely well isolated, it was met at midnight by a mob, and after a scene of riot the unfortunate patient had, many hours later, to be driven back to a common lodging-house in Stroud, where he ultimately died. But the terror of small-pox in this non-vaccinating union seems to have been something resembling the terror which the ignorant Russian peasants have of cholera. The following night the hospital building was besieged, wrecked, and burnt down. Oakridge, where the hospital is situated, has since then been in possession of a large body of police, and a number of respectable men were at the recent assizes convicted and sentenced to terms of imprisonment with hard labour for taking part in the affair. We are deeply sorry for these unfortunate people, who, having apparently been taught that vaccination was neither antagonistic to nor protective as to small-pox, seem to have had a perfect horror lest it should get a hold amongst them. How differently well-vaccinated persons would have influenced these people. The case is, from the administrative point of view, a very serious one, for it would never do to allow individuals to thwart the action of the properly constituted authorities who have statutory duties in connexion with the protection of public health, even though it could possibly be contended that the unvaccinated ran altogether exceptional risk from the action proposed.

A HARD CASE.

Le Scalpel, a very ably edited Belgian medical journal now in its forty-ninth year, relates the following case as a warning to surgeons against *trop de zèle*. A practitioner of Brussels had a patient who was suffering from a uterine affection. A specialist having been consulted curettage was recommended, and agreed to by both the woman and her husband. She accordingly entered an institution in order to undergo the operation, but while it was in progress the surgeon became aware, after dilatation of the cervix uteri, that he had to do with carcinoma. The patient being under the influence of an anæsthetic and the husband absent their consent could not be obtained; but the operator nevertheless decided to perform hysterectomy on his own responsibility. All at first went well, but unfortunately the woman died subsequently from hæmorrhage, whereupon the husband sued the practitioner, claiming damages to the extent of 50,000 francs for the loss of his wife. The Ministry of Justice came to the conclusion that 5000 francs would suffice; but at the time of writing judgment had not yet been pronounced. The case points to the inadvisability of performing such an operation as hysterectomy without the consent of the patient and her husband having been previously obtained. In the above case there is no reason why the operator, having ascertained the nature of the disease after dilatation of the cervix, should not have waited a few days before proceeding to remove the uterus.

THE REGISTRATION OF PLUMBERS.

IT is satisfactory to see among the private Bills to be introduced into Parliament during this session one that deals with the registration of plumbers. The necessity for some assurance of the efficiency of a class in whose hands the health of the public so largely rests cannot be too much insisted upon. It is vain, indeed, for county councils and local boards to frame by-laws for the protection of the public and to maintain a costly army of inspectors at the public expense unless the plumber, who is the man that eventually applies his own interpretation of these regulations to our houses, is duly qualified. The plumber must not only be competent to efficiently execute the practical part of the work, but be able to appreciate the theoretical

part also, as unless he can do this it is impossible for him to take an intelligent interest in his occupation. The Plumbers' Company, who for many years have carried on a system of registration, are the original promoters of the Bill, which has been backed by the following gentlemen:— Mr. Lees Knowles, Earl Compton, Mr. Dixon, Dr. Farquharson, and Mr. Sexton. The Bill asks for additional powers to render the present system more efficacious. The disciplinary powers asked for would seem to be much the same in character as those granted in the Dentists' Registration Act of 1878. The advantage of granting some authorised measure of registration or licence to men who have passed a suitable examination is very apparent. The renewal of such licence or diploma annually will be a means of throwing a largely increased share of responsibility directly upon the artisan, as any reported serious deficiency on the part of a registered man would naturally form a matter of inquiry upon an application for a renewal of his licence. The Bill is one that should, and doubtless will, command the support of all parties in the House.

THE SALE OF POISONS.

AT Marylebone Police-court Herbert Ensel Carne, druggist, Wigmore-street, was summoned for selling strychnine to Julia Hadler, who was unknown to him and had not been introduced by someone of whom he had knowledge. It appears that Hadler was housekeeper to Mr. Stonham of Harley-street. She applied for some poison to kill mice. The defendant said that, on being told she lived at Mr. Stonham's, he believed that she came for Mr. Stonham, whom he knew, and that he feared if he did not supply the poison Mr. Stonham might be angry. He entered the sale as required by law. Mr. Curtis Bennett, the presiding magistrate, ruled "that he (Mr. Carne) did not know either the woman's name or address, and had acted merely on the supposition that he knew her," and fined the defendant 10*s.* and costs. We entirely subscribe to the magistrate's decision, for it is impossible that the regulations concerning the sale of poisons can be too rigidly enforced. At the same time the offence against the Act was not of the worst description. Mr. Carne was guilty of negligence, it is true, but there is some extenuation of his fault in the fact that he supposed his knowledge of Mr. Stonham justified him in selling the article.

SHEFFIELD AND ITS HEALTH OFFICER.

IN the interests of Sheffield we regret that so reasonable a motion as that by which the health committee proposed, by increments of £50 a year, to raise Dr. Harvey Littlejohn's salary as medical officer of health from £500 to £750 has for the moment been defeated in the council. Dr. Littlejohn has held his office for four years, and this term is already in excess of that for which some of his predecessors continued to hold the post of health officer. Some have secured much better posts, and, as one speaker observed, it is not policy for a large borough to change its health adviser every few years because the post comes to be not worth holding. We admit that when a man of real ability is appointed the experience of Sheffield, which continues largely to increase in population, becomes of very great value; but Sheffield would do well to encourage those who have acquired matured experience to stay with them. There are, happily, many more better paid posts than those which were enumerated at the recent meeting of the Sheffield Town Council; and we feel confident that a Sheffield health officer of marked ability and standing would have chances in procuring one or other of such appointments beyond those of many other applicants. We hope, however, that before another of the many changes which have been made as to this in Sheffield takes place the town council will support their health committee in the very proper proposal which they make.

THE CAMBRIDGE "M.C." DEGREE.

THERE appears to be some confusion about the title of this degree. In the statutes of the University of Cambridge the degree is called "Master of Surgery," and the Bachelor's degree is called "Bachelor of Surgery." These titles are used in the University of London, "Bachelor of Surgery" or "B.S.," and "Master of Surgery" or "M.S." The initials, however, of these titles Latinised may be, and often are, used. Thus, in the universities of England and Ireland (except those of London and Cambridge) "B.Ch." stands for Bachelor of Surgery and "M.Ch." for Master; and in Scotland "Ch.B." stands for Bachelor of Surgery, and "Ch.M." for Master of Surgery. In Cambridge the custom is to indicate the titles by "B.C." and "M.C."

THE CARDIFF SCHOOL BOARD AND VACCINATION.

WE mentioned last week that the school board authorities at Cardiff had declined to accede to a request made by the Vaccination Committee of the board of guardians to allow the public vaccinators to inspect the children's arms in order to discover those who were unvaccinated. It is with some surprise that we learn that this refusal was made on the advice of the four medical members of the board, one of whom considered that such action would be an infringement of the liberty of the subject and likely to prejudice the cause of vaccination. Cardiff is threatened with a visitation of small-pox, and this is how the efforts of its authorities are checked in their endeavours to protect the community from its ravages. Perhaps if one of their children were to import the disease into a board school the extraordinary opinion elicited, we are sorry to say, from medical men, would be reversed, and no time would be lost to enforce vaccination on those attending the schools. In consequence of this refusal of a very reasonable and proper request the alternative costly method of a house-to-house visitation was suguested by the vaccination authorities, but this proposal has been rejected by the guardians on the score of expense. We imagine that similar reasons to those advanced at the school board would hold for declining to examine the throats or skins of children in the case of an outbreak of diphtheria or scarlet fever.

AT the next meeting of the Neurological Society of London, to be held at 20, Hanover-square on March 5th, at 8.30 P.M., it is proposed to have a discussion on the Visual Areas of the Cerebral Cortex. Dr. Sharkey, Dr. Ferrier, Dr. Turner, and Professor Schäfer will take part in the discussion on "Three cases bearing on the subject, including one in which there was a lesion of the angular gyrus on both sides," and "Experimental results bearing on the question"; other members wishing to do so are invited to communicate with the hon. secretaries, Dr. F. W. Mott and Dr. J. Risien Russell, at 4, Queen Anne-street, W.

AT the close of the discussion on the two papers on Renal Pain which are to be read by Dr. Ralfe and Mr. Hurry Fenwick before the Medical Society of London on Monday next, the 24th inst., a demonstration of the methods employed in producing the new shadow photographs by Roentgen's "x" rays will be given by Mr. Sydney Rowland, B.A. Photographs of a simple case will be taken to more fully illustrate the method.

THE degeneracy of the criminal both physical and mental, his proneness to disease, and the ill-effects of prison discipline, are frequently made the subject of adverse comment. Notwithstanding this, the health of the London criminal

seems to be fairly satisfactory, if we may judge from the fact that no death has occurred in Pentonville Prison for over twelve months.

WE are glad to see that Congregation has approved the preamble of a statute which provides for bringing the Medical Faculty of the University of Oxford and the Radcliffe Infirmary into closer relationship. The statute also provides for the pathological department of the infirmary being placed under the Regius Professor of Medicine.

MR. J. KNOWSLEY THORNTON will deliver the second Hunterian Society's lecture on Wednesday, Feb. 26th, at 8.30 P.M., in the theatre of the London Institution, Finsbury-circus. The subject will be the Lines of Advance in Abdominal Surgery. Members of the profession are cordially invited.

THE University of St. Andrews has conferred the degree of LL.D. upon Dr. G. W. Balfour and Dr. Andrew Smart, both of Edinburgh. Dr. Smart is well known for his valuable researches into the cause and cure of rinderpest, and Dr. Balfour's treatise on "The Senile Heart" is a classic.

SURGEON-CAPTAIN GEORGE HILLIARD, who attended Prince Henry of Battenberg in his last illness, has been personally decorated by the Queen with the Order of the Companionship of St. Michael and St. George.

H.R.H. THE DUCHESS OF ALBANY will preside at the reopening of the wards of the East London Hospital for Children on Wednesday, Feb. 26th, at 3 P.M. precisely.

THE annual report of the Local Government Board has just been issued. It deals, as usual, with a multiplicity of subjects which it will be incumbent upon us to notice.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

AN ordinary meeting of the Council was held on the 13th inst., the President, Mr. CHRISTOPHER HEATH, being in the chair.

The Council decided to present an address of condolence to Her Majesty the Queen and H.R.H. Princess Beatrice on the occasion of the death of H.R.H. Prince Henry of Battenberg.

The President stated that he and the Vice-Presidents and the Secretary had represented the College at the funeral of Lord Leighton and had expressed the sympathy of the Council with the Royal Academy.

The Council accepted the following recommendations of the Committee of Management:—

1. That the High School, Nottingham, be added to the list of recognised places of instruction in chemistry, physics, and practical chemistry.
2. That Mr. Thomas Cooke's course of Operative Surgery be recognised as fulfilling the requirements of the regulations for the present year on the same conditions as heretofore.
3. That graduates in Medicine or Surgery of Foreign Universities recognised by the Examining Board in England be admitted to the Final Examination on the same conditions as colonial graduates (paragraph IV., section III., of the Regulations).
4. That in case of other graduates than those of the Universities at present recognised the Committee be empowered to admit them under similar conditions on being satisfied that the requirements of the Examining Board in England have been fulfilled.

The Committee on the Dental Surgery Examinations presented a report in which they express the opinion that it is desirable that the teachers at the three schools of Dental Surgery in London—viz., the Dental Hospital of London School of Dental Surgery, Guy's Hospital Dental School, and the National Dental Hospital and College—should be afforded the opportunity of expressing their opinion upon the proposed alteration, and therefore recommend to the Council that for this purpose a copy of the scheme drawn up by the Board of Examiners in Dental Surgery should be sent to the Dean of each of those schools.

As reported in the last number of THE LANCET, the report of the Deputation Committee was received and the Council resolved: "That before the Fellows are addressed upon the subject the Council do take into consideration at an early meeting the question whether Members should or should not be directly represented on the Council."

Mr. Reginald Harrison was appointed Bradshaw Lecturer for the ensuing college year.

The Council decided to appoint at the next meeting a representative of the College on the General Medical Council, as Mr. Bryant's appointment as representative will expire on March 12th, 1896.

The Secretary read a letter, dated Dec. 21st, 1895, addressed to the President from Mr. Maurice Joly, M.R.C.S., forwarding a copy of a petition, signed by himself and other holders of British diplomas in the Colony of Mauritius, praying the Home Government "that the preference, when possible, for Government appointments in this colony be given to holders of British diplomas," and asking the President, on behalf of the petitioners, to use his influence in support of this principle. The President stated that, having previously received a letter of similar purport from Dr. J. I. Paddle, a Fellow of the College, residing in Mauritius, he had written to the Secretary of State for the Colonies expressing a hope that he would give his favourable consideration to the matter.

It was resolved that on application to the Secretary recognised reporters of the public press be admitted to the half-yearly meetings of the Fellows.

A letter was read from Mr. H. Percy Dunn, forwarding a copy of a resolution of the Committee of the Association of Fellows inviting the attention of the Council to the subject of the admission of reporters to the half-yearly meetings of Fellows. It was resolved that Mr. Dunn should be informed that the matter had already been decided.

THE ASHANTI EXPEDITION.

WE are pleased to report the safe arrival in England of our Special War Correspondent from Ashantiland. He returned from Cape Coast Castle in the s.s. *Batanga*, and has quite recovered from a severe attack of African fever which he contracted at Akusirem. This was a wretched malarious spot where no proper supply of drinking-water could be obtained. Our representative was detained at this place by the exigencies of the service for four days prior to the arrival of the Headquarter Staff and troops. However, Surgeon-Colonel Taylor, Principal Medical Officer, on reaching Akusirem, immediately condemned its selection as a rest camp, and by orders it was evacuated by everybody within a few hours of his decision being made known to Sir Francis Scott.

We quote the following paragraph from our esteemed contemporary, the *Army and Navy Gazette*, with every sentiment of accord with its generous expressions:—

"Our most formidable foe in the recent West African campaign has been the dreadful climate. Our truly dangerous and insidious enemy, although fatal in notable cases, has been on the whole ably combated by the medical officers and service. These officers appear to have been well selected, and have evinced zeal and capability, creditable to all concerned—to the chosen and chooser. As the Medical Department of the Army has recently been subjected to severe criticism it is only fair to notice that when submitted to a severe ordeal, as undoubtedly was the late Ashanti expedition, the authorities responsible during a very anxious period acquitted themselves most admirably—results proving how perfect the arrangements were, both at home and on the theatre of action, how wise and comprehensive the forethought, how energetic the execution of trying duties. In this connexion a correspondent, a combatant officer, writes: 'I am bound to say that I never saw anything to equal the unwavering devotion of all ranks of the medical staff. Day and night have I seen the doctors here labouring to save life. They were simply a band of heroes, and I only wish that some of their detractors and blackballers in Service clubland could have been here to have seen for themselves what England's soldier doctors can do when put to the test of service. On the principle of honour where honour is due, I trust you will allow me to say that Surgeon-Colonel Taylor and his staff are entitled to every credit, and this, I trust, will be accorded them officially, as I can answer for it it is unofficially throughout this force.'"

THOMAS WAKLEY,

THE FOUNDER OF "THE LANCET."

A BIOGRAPHY.[1]

CHAPTER VIII.

The Founding of THE LANCET.—*Its Purposes and Principles as revealed in the Original Preface.—Contents of the First Number.—The Promises of the Preface Fulfilled.*

THE first number of THE LANCET was issued on Oct. 5th, 1823, which was Sunday. It bears the imprint "Printed and published by G. L. Hutchinson, at THE LANCET Office, 210, Strand, London, where all communications for the editor are requested to be addressed (post paid). This work is published at an early hour every Saturday morning, and sold by Knight and Lacey, Paternoster Row, and by all booksellers in the United Kingdom." It is a fact significant of the stormy career upon which the new paper at once embarked that the names of the printers and publishers were omitted from the imprints after the second number. The names reappear on the title-page to the second volume, and the connexion of these agents with the paper is proved to be existent in 1825 by the unpleasant circumstance for them that they were made defendants in a case shortly to be mentioned and of the gravest importance not only to Wakley but to the literary world—the case of Abernethy *v.* Hutchinson, Knight and Lacey; but the future defendants obviously did not seek from week to week to share in the notoriety that THE LANCET rapidly began to enjoy. The editorial office at 210, Strand was a room in the printing establishment of Messrs. Hutchinson and Co., whose premises stood on the south side of the thoroughfare nearly opposite St. Clement Danes' Church, and consequently about fifty yards only from Wakley's private residence in Norfolk-street. From this it will be gathered that the true editorial office was Wakley's house, the address at 210, Strand being only given to preserve for the editor some measure of anonymity.

The preface in which Wakley defines with boldness and some ingenuity his intentions in coming before the medical world with a new journal is given below. The boldness is shown in a manner which in these days it is hard to appreciate, for the vested interests upon which his prefatory words declared deliberate war have so long disappeared from the history of the profession that we can hardly realise that they ever had their monstrous being. That the great hospitals of the metropolis were managed in the interests of a few rather than of the community at large seems to us now incredible. Yet so it was. A few persons through interest or purchase obtained the appointments and became at once pledged to dispose of these appointments by similar methods when the time should arrive. The medical profession as a body were wronged by their leaders. They paid for general education and special instruction which they did not obtain; they were examined under conditions which did not sift the grain from the chaff, so that the general intellectual status was perforce low; and they had no voice in the election of the rulers who thus mismanaged their affairs and misappropriated their fees. The ingenuity is shown by the temperate manner in which the war is declared and the large scope of the policy indicated. Not a word is said in abuse of persons flourishing under a corrupt system. Their words as theorists and their acts as clinicians are to be made public; if they object it must be for interested reasons. But it is assumed that, being the men of distinguished light and leading that they should be, they can have no motive for desiring the shelter of the bushel; while the publicity promised for them is not to satisfy any narrow curiosity, but to benefit the medical profession, and therefore the world at large, by furnishing an opportunity to the rank and file of that profession of remaining in intellectual touch with their leaders.

Preface to No. 1, Volume I., of THE LANCET.

(Reprinted in the second edition, but not in subsequent editions.

"It has long been a subject of surprise and regret that in this extensive and intelligent community there has not hitherto existed a work which would convey to the Public, and to distant Practitioners as well as to Students in Medicine and Surgery, reports of the Metropolitan Hospital Lectures.

"Having for a considerable time passed observed the great and increasing inquiries for such information, in a department of science so pre-eminently useful, we have been induced to offer to public notice a work calculated, as we conceive, to supply in the most ample manner whatever is valuable in these important branches of knowledge; and as the Lectures of Sir Astley Cooper, on the theory and practice of Surgery, are probably the best of the kind delivered in Europe, we have commenced our undertaking with the introductory address of that distinguished professor given in the theatre at St. Thomas's Hospital on Wednesday evening last. The Course will be rendered complete in subsequent numbers.

"In addition to Lectures, we propose giving under the head, Medical and Surgical Intelligence, a correct description of all the important Cases that may occur, whether in England or on any part of the civilised Continent.

"Although it is not intended to give graphic representations with each Number, yet we have made such arrangements with the most experienced draughtsmen as will enable us occasionally to do so, and in a manner, we trust, calculated to give universal satisfaction.

"The great advantage derivable from information of this description will, we hope, be sufficiently obvious to everyone in the least degree conversant with medical knowledge; any arguments therefore to prove these are unnecessary and we content ourselves by merely showing in what directions their utility will prove most active.—To the Medical and Surgical Practitioners of this City whose avocations prevent their personal attendance at the Hospitals—to Country Practitioners whose remoteness from the head-quarters, as it were, of scientific knowledge leaves them almost without the means of ascertaining its progress—to the numerous classes of Students whether here or in distant Universities—to Colonial Practitioners—and, finally by adding to the stock of useful knowledge of every individual in these realms. In this attempt we are well aware that we shall be assailed by much *interested* opposition; but we will fearlessly discharge our duties. We hope the age of '*Mental Delusion*' has passed and that mystery and concealment will no longer be encouraged. Indeed we trust that mystery and ignorance will shortly be considered synonymous. Ceremonies and signs have now lost their charms, hieroglyphics and gilded serpents their power to deceive. But for these it would be impossible to imagine how it happened that medical and dietetical knowledge, of all other the most calculated to benefit Man, should have been by him the most neglected. He studies with the greatest attention and assiduity the constitutions of his horses and dogs and learns all their peculiarities; whilst of the nature of his own he is totally uninformed and equally unskilled as regards his infant offspring. Yet a little reflection and application would enable him to avert from himself and family half the constitutional disorders which affect society; and in addition to these advantages, his acquirements in medical learning would furnish him with a test whereby he could detect and expose the impositions of ignorant practitioners."

The last paragraph of this preface conveys in telling words the real purpose of the new paper. THE LANCET was devised to disseminate medical information primarily, and incidentally to make war upon the family intrigues and foolish nepotism that swayed the elections to lucrative posts in the metropolitan hospitals and medical corporations by letting the flooding light of publicity upon hole-

[1] Chapters I., II., III., IV., V., VI. and VII. were published in THE LANCET, Jan. 4th, 11th, 18th, and 25th, Feb. 1st, 8th, and 15th respectively.

and-corner mischief in either class of institution. The first was the veritable object of Wakley's paper, and he never lost sight of it; but it may be necessary now and again to insist further upon this point, because his more bellicose task of fighting the opponents of progress, being so much more sensational in its developments, necessarily attracted wider attention than his beneficent schemes for post-graduate education of the profession by the publication of addresses and hospital reports, and for the amelioration of the educational condition of the student. Indeed, while he remained constant to his original design of supplying information, almost every passage in his life for the next ten years that had its origin or took its colour from his connexion with THE LANCET goes to prove that he considered himself to be under a mandate from the profession at large not only to keep them well posted in the scientific side of their work, but to see that the rights of the general body of practitioners were not infringed by a particular set of persons. This attitude it was that prompted him to violent attacks upon individuals whom he considered to oppose the progress of the cause he had not adopted, but invented; this it was that made him so intolerant to the contemporary medical press, which was written to please the eminent few rather than the profession at large; and this it was that was responsible for all the good that arose, directly or indirectly, from the founding of THE LANCET, as it was responsible for certain errors of taste and judgment which marked the early career of the paper. An eloquent man of passionate convictions is not always prudent in balancing his phrases; a young editor with a good cause and no one to supervise his manuscript is not always mincing in his epithets. There were things written in the early numbers of THE LANCET that would not have appeared had the editor been a man of wider experience; but the harm that they did was small and recoiled chiefly upon Wakley, who was never afraid to meet his liabilities, while the value of his fearlessness and ardour to the cause of reform was incalculable.

The contents of the first number of THE LANCET should now be enumerated as showing how far the editor proposed to carry out the promises of his preface. A surgical lecture by Sir Astley Cooper, Sergeant-Surgeon to the King, occupied the place of honour. This lecture was preceded by a paragraph which gives us some idea of the position held by the eminent and eloquent surgeon at that time:—

"At half-past seven the Theatre (the theatre of St. Thomas's Hospital) was crowded in every part by upwards of four hundred Students of the most respectable description; in fact we never before witnessed so genteel a Surgical class: the sight was most pleasing, for they all appeared gentlemen of cultivated manners and good education."

A class of four hundred! When it is remembered that all these students had paid fees of three guineas and upwards, and that the greater part of the money so collected belonged to the lecturer, it will be seen that a successful hospital lecturer occupied in those days not a bad pecuniary position. And this fact explains both the eagerness of the senior men to be succeeded by their friends and their relations, and the absolute righteousness of Wakley's contention that only the best men should hold such posts. The amiable reference to the demeanour of the audience emanated from a certain editorial prudence we are bound to believe. The new journal was partly addressed to the students, and it was the design of the founder to make the grievances of this class a prominent feature in his arguments for medical reform, therefore it would be but ordinarily civil to put them in good conceit with themselves. The next article is headed "Politics," and its alternative title is "Enlightened Liverymen." It has no medical interest at all, but is a short display of Wakley's vehement and occasionally truculent literary style when dealing with those opposed to him in thought. Of the younger Pitt Wakley speaks as follows:—

"His admirers, in rapture, called him a 'boy-statesman' in his twenty-third year; and in his forty-seventh year he was still the same; still the official coxcomb, running after wild impracticable schemes, regardless of everything but the gratification of his own senseless, remorseless, and petty ambition."

This is hardly an accurate or temperate account of a patriotic statesman and a great fiscal politician, who guided our country autocratically, perhaps, but unselfishly and splendidly in times of her severest need. It may be taken for granted that William Cobbett inspired the sentiments, though Pitt, the creator of Peers, was not likely to be a grateful personality to the editor of a journal directed against the abuse of oligarchical privileges.

Then follows a paragraph headed "Dr. Collyer," containing an innuendo against that gentleman's character which gained double force from the fact that the subject was a well-known dissenting minister. Next we have three columns entitled "The Drama," in which Elliston's acting in the *Rivals* at Drury Lane and Kemble's in *Much Ado About Nothing* at Covent Garden come in for favourable notice. Then we come to an important department, entitled "Medical and Surgical Intelligence." It contained reports of three cases from a clinical point of view—viz., a Case of Anasarca, a Case of Hydrocephalus, and a Case of Hydatids of the Liver; a long reply from Mr. Henry Earle, assistant surgeon to St. Bartholomew's Hospital, to Sir Astley Cooper, who had, a little hastily, attempted to controvert his junior's views on the union of Fractured Femur; and two editorial articles, one entitled Obstruction of Blood in the Lung, and the other the Fatal Effect of Fear. In this department Wakley borrowed largely from his contemporaries. The first clinical case was communicated to his columns specially, but the second came from the *London Medical Repository* and the third from the *Edinburgh Medical and Surgical Journal*. Mr. Henry Earle's letter was a judicious reply to a ridiculous accusation from Sir Astley Cooper. The great Guy's champion said that the surgeon from St. Bartholomew's took a favourable view of the chances of union of a fracture of the cervix femoris so as to exalt the practice of St. Bartholomew's Hospital where the prognosis in this injury was good at the expense of Guy's where it was bad. The letter was addressed to the Editor of the *London Medical Repository*. Of the two editorial articles only the second is original. It is an interesting little account of a case where a patient at the London Hospital died suddenly while an operation—of course, without the production of anæsthesia—was being commenced upon him for the ligature of a femoral aneurysm. Next we find a column headed "Medical Extracts." These are short, practical remarks on treatment and pathology derived from the lips or written works of Abernethy, Wilson, and Hamilton. The germ of a great idea lay hid in the next article, entitled "The Composition of Quack Medicines." In this we have the results of an analysis of Dalby's Carminative, Daffy's Elixir, and Spelbury's Antiscorbutic Drops. A batch of newspaper extracts follow, whose force and point are not very obvious to modern readers; and the number closes with a reprint of an open letter from Charles Lamb to Robert Southey, Poet-laureate, which appeared in the *London Magazine*. The number had thirty-six pages in all, and no wrapper.

As will be seen, the promise of the preface was very fairly carried out in the first number. An excellent clinical lecture followed by records of interesting cases in surgery and medicine gave the scientific information, to disseminate which Wakley put in the front of his intentions; while a free-spoken communication from a distinguished hospital official about another still more distinguished colleague gave sufficient evidence that no amount of prestige was to protect a

man from criticism in the columns of THE LANCET. The analysis of certain quack remedies was the protoplasmic origin of an enormous organisation—THE LANCET Special Analytical Commissions—while the editorial note upon a sudden death occurring at a hospital was doubtless inserted as a proof that the doings within those fastnesses of prejudice and secrecy were open to the editorial gaze.

It was characteristic of the young journalist that he should never have considered whether he had a legal right to publish Sir Astley Cooper's lectures. His intentions were good, and he would have expressed them somewhat in this way:—I will publish the lectures of the hospital surgeons and physicians to their classes; if they are good so much the better for the profession at large who will read them in my pages and for the students who have paid to listen to them; if they are bad their publication will let my audience—which I mean shall be the whole of the medical profession—see that the students are being taught by men unfit to hold the posts for which they are paid, and to which they had been corruptly elected. It was a good example of fairness on Wakley's part that he should have selected Sir Astley Cooper as the first lecturer to be introduced to the medical public. Sir Astley Cooper was then at the zenith of his fame. He was a splendid lecturer, with enormous experience to draw upon and lucid methods of presenting his facts, so that the issue of his lectures was a real boon to the profession. Had Wakley desired he could have selected as a specimen a lecturer belonging to the privileged and highly paid classes, some inept bungler—there were such in those days,—and have reported him and criticised him simultaneously. But he desired to *inform* as much as to *reform*, and whatever his legal position might have been in the matter, consideration of which will form the subject of our next chapter, the great value that the publication of such lectures was to the medical world is beyond all doubt.

(To be continued.)

ARMY MEDICAL REPORT FOR 1894.

(FIRST NOTICE.)

THE issue of the Army Medical Blue-book has followed closely on the heels of that of the navy. The date of the prefatory letter of the Director-General to the Secretary of State for War is Dec. 4th of last year, but the report has only just appeared. In addition to the usual statistical and tabular statements on the health and sanitary condition of the army for 1894, the volume contains a dozen papers of professional interest, together with a record of meteorological observations at Netley and stations abroad for the year, and announcements connected with the Parkes and Alexander Memorial Prizes.

As regards the health statistics of armies, and of the British army in particular, it has to be borne in mind that there are several reasons why these should differ from statistical deductions derived from other sources. The young men entering our own army, for example, are selected as healthy and fit for military service to begin with, and they are invalided out of the service when they become unfit or attacked with diseases which are either incurable or likely to become chronic, fatal, or to seriously impair their military efficiency. The military differs from the civil population of the United Kingdom in that soldiers having to serve in different climates are exposed to various climatic causes of disease, the results of which are frequently manifested at later dates, so that from these and other causes it is difficult to obtain any really correct and reliable bases of comparison between military bodies and other communities. The army of this country, too, with its various colonies and dependencies, differs from the armies of other nations, and an exact basis of comparison can only be properly instituted between regiments or bodies of men who have gone through similar environing conditions or been similarly circumstanced in their military service. There is no other army that is placed under the same conditions as that of this country; the army of France somewhat resembles that of England in this respect, but that of Germany scarcely does so at all.

Turning, however, to the health of the British army at home and abroad we are told that the statistics of the troops serving in the United Kingdom during 1894 compare favourably with those of the preceding year. There were, however, 11 cases of small-pox, the highest number recorded in any year since 1888; but there was a marked decrease in the other eruptive fevers. Enteric fever also shows a definite decrease, although an outbreak of the disease attributable to water-pollution occurred at Caterham. Influenza shows a large decrease in 1894 as compared with 1893, and venereal disease also declined. As regards the colonies the general health shows improvement in comparison with 1893. This improvement was marked in Egypt and in the Mauritius. At Hong-Kong there was an epidemic of bubonic plague following the outbreak at Canton, and our troops did not altogether escape, although the disease was practically confined to the Chinese. The rate of sickness in Bengal was increased in 1894 as compared with that of the previous year or the average of the preceding ten years, the increase being mainly malarial fever and venereal diseases. Cholera also prevailed. A very severe outbreak, it will be remembered, took place at Lucknow, where 144 cases occurred, 97 of which were fatal. The polluted sand of the filter beds attached to the wells was the alleged cause of the outbreak in question. The statistics of sickness in the other presidencies—Madras and Bombay—also compare unfavourably with those of previous years, the chief factors being, as in the case of Bengal, malarial fevers and venereal affections. Enteric fever also contributed towards the increased rates of sickness and mortality.

The average strength of the European troops at home and abroad was 203,469 in 1894, and the following shows the ratios per 1000 of strength:—

European Troops.	Ratio per 1000 of strength.					Average sick time to each soldier.	Average duration of each case of sickness.
	Admitted.	Died.	Sent home as invalids.	Discharged as invalids.	Constantly non-effective from sickness.		
						Days	Days
Troops at Home and Abroad...	985·3	8·75	22·72	15·23	61·04	22·28	22·63

While the mortality in the United Kingdom during 1894 was 3·70, and at Gibraltar 2·97, and at Cyprus 3·45 per 1000 respectively, it was 8·61 for Egypt, 8·51 for Bermuda, 10·29 for Mauritius, 17·98 for China, and 16·81 for India.

As compared with the average ratios per 1000 for the previous ten years we may say that the death-rate for troops serving at home and abroad was 9·60, for those serving in the United Kingdom 5·36, Gibraltar 5·01, Cyprus 8·07, Egypt 20·64, Bermuda 10·49, Mauritius 17·55, China 10·65, and India 16·27 per 1000 respectively.

ROYAL COLLEGE OF PHYSICIANS OF LONDON.

PROPOSED ABOLITION OF EXAMINATION IN PHARMACOLOGY.

AN extraordinary Comitia of the Fellows of the Royal College of Physicians of London was held on the 13th inst., Sir J. RUSSELL REYNOLDS, Bart., President, being in the chair.

The REGISTRAR read the gracious reply from Her Majesty the Queen and from H.R.H. the Princess Henry of Battenberg to the vote of condolence passed by the College at its last meeting.

The PRESIDENT stated that a reply had been received from Sir W. Jenner thanking the College for its congratulations sent to him on the occasion of his eighty-first birthday.

The College Seal was set to copies of the new College List for the information of the Registrars of the General Medical Council.

On the recommendation of the Laboratories Committee Dr. G. Sims Woodhead was reappointed Director of the Laboratories for another year.

Dr. J. A. J. Rice Oxley having entered into a partnership resigned his Membership of the College and returned his diploma. The resignation was formally accepted.

A communication was read from the President of the Birmingham Clinical Board pointing out that, according to the regulations at present in force, the period of hospital practice required of candidates was too short; and on the motion of the Registrar it was resolved to insert the words "after having passed the second examination" in the clause referring to hospital practice.

Dr. NORMAN MOORE then moved the following resolutions:—

1. "That 'Pharmacology' as a separate subject be omitted from the Third or Final Examination and the synopsis headed 'Pharmacology' from the Regulations, and that 'The Action of Medicinal Agents on the Body in Health and Disease' form part of the 'Third or Final Examination' in Medicine, Surgery, and Midwifery."
2. "That the term 'Pharmacy' be substituted for that of 'Practical Pharmacy' in the Regulations, and that of 'Materia Medica' for 'Pharmacology' in the list of requirements for the Third or Final Examination, and that the Examination in Pharmacy be written as well as oral on the subjects of the synopsis headed 'Practical Pharmacy,' but that in paragraph *a* (p. 19) the words 'medicinal action' be added after the word 'composition.'"
3. "That candidates be admitted to examinations in 'Pharmacy' at any time after passing the Second Examination and not 'at any time during the curriculum.'"
4. "That the alterations necessary to bring the Regulations into accord with the above resolutions be referred to the Committee of Management, and that if the Royal College of Surgeons agree on their part, the Regulations be issued."

With respect to the first resolution he pointed out that the extended synopsis of the scope of the proposed examination was in the main devoted to the physiological action of drugs; and he maintained that the action of medicinal agents should find a place in the examination in medicine. In the second resolution the omission of the word "practical" from before "pharmacy" would better define this subject, since candidates were never examined in it practically; and he thought that a course of lectures on "Materia Medica" might well be substituted for the course on "Pharmacology and Therapeutics" at present required. The expression of opinion at the last two meetings of the College showed that there was a strong feeling against the retention of pharmacology as a separate subject of examination and justified the proposal to abolish this examination even at so close a period to the time when the regulation would be operative. Dr. Moore reminded the College of the deliberations that took place in the College and in a joint committee of the two Colleges when the scheme of examinations under the five years' curriculum was first propounded. Pharmacology was then given a distinct place in the later period of study, and the synopsis was drawn up after conference with examiners. The regulations thus adopted in April, 1893, provided for four examinations, the fourth being wholly clinical; and in April, 1895, a plan for conducting this examination was approved by the Royal College of Physicians. The Council of the Royal College of Surgeons, however (with whom the scheme had originated), saw difficulties in the way of the new scheme, so that in November, 1895, it was finally resolved to revert to the plan of three examinations, the third taking place at the end of the fifth year on a more extended basis than at present. There still remained the subject of pharmacology, which, although included under the head of medicine, was to be conducted by special examiners and could be taken by the candidate after the fourth year of medical study (provided the anatomical and physiological examination had been passed). Was it wise to make this addition to the burdens of the students and would it make them sounder practitioners?

Dr. KINGSTON FOWLER, in seconding the resolution, pointed out that as a matter of fact the five years' curriculum really obtained at present, for of the last 100 candidates obtaining diplomas not one had done so after simply four years of medical study. The average time taken by a student to become qualified under the four years' curriculum was four years and ten months. This seemed to do away with any necessity for adding to his examinations on the ground that the curriculum had been extended to five years.

Dr. THORNE THORNE pointed out that an examination in pharmacology did not find a place in any other licensing body, and that although at Edinburgh University the course of lectures embraced "pharmacology and pharmacognosy," the examination was in "materia medica and therapeutics." The original object of extending the curriculum was to give students more practical work.

Dr. HALE WHITE contended that a lengthy synopsis was a better protection for the candidate than a brief one, and this synopsis in pharmacology laid down the lines of examination in a subject for which the teaching in the schools had been specially arranged. To reintroduce "materia medica" in place of "pharmacology" would not diminish the student's work, but owing to the lack of precision as to the definition of the former might materially increase it. The pith of the matter was, Should candidates have a reasonable knowledge of the action of drugs, and should they not undergo a better training than that of learning the empirical reasons for giving drugs, and might not the proposed scheme give them a greater interest in the subject?

Dr. LAUDER BRUNTON considered the resolutions to be retrograde in tendency and injurious to the best interests of medicine. The College would not gain much credit if it were so vacillating in these matters. Just when the question that examinations should be connected with teaching was being prominently set forth in the proposals to reform the London University these resolutions proposed that the examination in a particular subject should not be conducted by the teachers of that subject. When the scheme was revised it was decided to substitute for the old "materia medica" with its useless knowledge of the origin of drugs, &c., the subjects of "pharmacy" and "pharmacology," and it was hoped to have made the pharmacy examination a practical one. As to the meaning of pharmacology, it embraced a knowledge of the action of drugs in health and disease, and its scope was so wide that it was necessary to limit it as had been done by this synopsis. Of the value of such a knowledge he might instance the prescription of digitalis, the toxic effect of which was the production of symptoms that one ignorant of the properties of the drug would think further administration of it was required.

Dr. CURNOW said that if the results of experimental physiology be taken away from pharmacology and also those of therapeutics, not much would be left. He contended that the student's course was hampered by his having to pass an examination in a subject which was partly physiological and partly clinical.

Dr. LEECH considered that to make this alteration now would be very perplexing to the student. The proposal that examination in pharmacy should be deferred until the second examination was passed meant that the student would enter on hospital work without knowing anything about drugs. The term "medicinal action" only meant what the examiner chose to make it.

The usual hour for adjournment having arrived, it was decided by vote to continue the discussion, a motion for closing the debate made by Dr. Heron and seconded by Dr. Poore having been withdrawn.

Dr. BURDON SANDERSON feared that the adoption of the second resolution would increase the burden of the student, as it would reintroduce materia medica which was not a subject that it was desirable to emphasise. Nor should the number of examinations be increased. Drugs should be handed over to the druggist, whilst the introduction of purely scientific studies during the period of clinical study was objectionable. He moved an amendment in this sense, which was supported by Sir W. BROADBENT, who suggested that if the first resolution only were passed the working out of any consequent changes might be left to the Committee of Management.

Dr. NORMAN MOORE, having accepted the suggestions of Dr. Sanderson and Sir W. Broadbent, withdrew Nos. 2 and 3 of his resolutions, and the resolution in its final form was put and carried by a large majority as follows:—

"That pharmacology as a separate subject be omitted from the Third or Final Examination and the synopsis headed 'Pharmacology' from the Regulations; and that the alterations necessary in the Regulations be referred to the committee of management for consideration."

Dr. LEES moved that in one of the two papers in the medicine examination there be set three questions on pharmacology and therapeutics.

This was not seconded, and the Comitia adjourned.

UNIVERSITY OF BRUSSELS.—In the list of the successful candidates for the February examination for the M.D. degree occur the names of two English medical men—viz., Charles Robert Watson, M.R.C.S., L.R.C.P., *avec grande distinction*, and Robert Edwards, M.R.C.S., L.R.C.P., *avec distinction*.

URBAN MORTALITY IN SCOTLAND IN 1895.

THE collective mortality in the eight principal towns of Scotland last year was 33,329, or at the rate of 22·21 per 1000 of the estimated population at the middle of the year (1,500,435). In 1894 the death-rate was 19·1 per 1000 inhabitants, being the lowest on record. The mortality for the first quarter of 1895 was 11,390; second quarter, 7772; third quarter, 6881; and fourth quarter, 7286. The following table shows the total number of deaths, estimated population, and death-rate in each of the eight towns in 1895, as well as the mean death-rate of the ten years 1885–94:—

——	Deaths.	Population.	Death-rate in 1895, per 1000.	Mean death-rate of previous ten years, per 1000.
Glasgow	16,332	695,876	23·47	22·08
Edinburgh ...	5,680	273,535	20·76	19·52
Dundee	3,402	160,163	21·24	20·80
Aberdeen ...	2,818	133,773	21·07	19·66
Leith	1,487	73,048	20·36	19·25
Paisley	1,548	71,622	21·61	22·46
Greenock ...	1,431	62,090	23·05	21·15
Perth	631	30,328	20·81	19·84

The increase in the collective death-rate of the eight towns in 1895 as compared with 1894 is due partly to the increased prevalence of miasmatic disease. There was also a large increase in the number of deaths from heart diseases and diseases of the respiratory system, the mortality from these causes being specially heavy in the first quarter of the year, when a snowstorm of exceptional severity and duration occurred. Of the total 33,329 deaths, 12,810 were those of children under five years of age, being 38·4 per cent. of the whole, compared with 39·6 per cent. in 1894. The total number of deaths from miasmatic diseases last year was 3430. Of the 40 deaths from small-pox, 9 were those of vaccinated persons, 11 of unvaccinated, and in 20 cases no statement was made. There was during the first five months of the year an epidemic of measles in all the towns except Greenock, where, however, the mortality from that cause was marked in May. Altogether during the year 1044 deaths were due to measles and 984 to whooping-cough, the victims being chiefly children. The deaths from influenza rose from 143 in 1894 to 479 in 1895. Last year the mortality from other leading miasmatic diseases was as follows: scarlet fever, 337; typhus fever, 18; diphtheria, 256; and enteric fever, 253.

Heart diseases cut off 2707 persons in 1895, while in 1894 the deaths from diseases of the circulatory system numbered only 2479. To phthisis 3207 deaths were ascribed last year. From inflammatory diseases of the respiratory organs (not including whooping-cough and phthisis already mentioned) 7730 deaths were due in 1895, a great rise on the figure for the year 1894, which was 5434. In February and March last year the mortality from these inflammatory diseases was 1522 and 1353 respectively. In August and September, on the other hand, it was only 249 and 290 respectively. The general mortality for the third (or summer) quarter was, it will be noticed, 6881, as against 11,390 for the first (or winter) quarter. The only class of diseases in which the mortality rose in the summer quarter was in diarrhœal diseases. In the third quarter of the year these caused 561 deaths, contrasted with 81 in the first quarter.

Of the whole 33,329 deaths last year the causes are classified generally as follows: specific febrile or zymotic diseases, 4875; parasitic diseases, 3; dietetic diseases, 124; constitutional diseases, 5965; developmental diseases, 2269; local diseases, 17,575; violence, 1139; and ill-defined and not-specified causes, 1379. About 36 per cent. of the population of Scotland reside in these eight towns. During the first quarter of last year the weather was cold, with frost and snow; during the next six months it was, on the whole, agreeable; and in the last quarter, while there was little snow, there were a great many wind and rain storms.

Public Health and Poor Law.

LOCAL GOVERNMENT DEPARTMENT.

REPORTS OF INSPECTORS OF THE MEDICAL DEPARTMENT OF THE LOCAL GOVERNMENT BOARD.

Enteric Fever at Quarry Bank, by Dr. S. W. WHEATON.—Quarry Bank is a small urban district of 6732 inhabitants in Staffordshire, and in 1886 it was the seat of a prevalence of typhus fever. When, therefore, last autumn the Local Government Board heard that a fatal outbreak of fever was again prevailing there, and that it was more directly contagious from person to person than is usual in enteric fever, they instructed Dr. Wheaton to visit the place and to report on the circumstances. The facts which he elicited included the following. There had been notified 56 cases of fever, which were first looked upon as of obscure type, but which were afterwards held locally to be enteric fever. Of these no less than 13 died, and this high fatality leads to the surmise that mild attacks other than those notified had also occurred. The disease was singularly limited to a small portion of the district; at one point nearly every house was invaded; and multiple attacks in households occurred in many instances. Thus, in one house the mother died from the fever and 6 children were attacked. The secondary cases in households followed at about a week's interval on each other, and the patients were seen in all stages of the disease. The fever was enteric fever, having exceptional potency for spread. The causes of the disease and its notable virulence in households are not very difficult to explain. The water was mostly from wells close to houses, leaking privies, and defective drains; the privy receptacles were at times mere holes in the ground; excremental accumulations formed a grave nuisance; and the ground in parts was littered with excremental filth, including at times the excreta of the sick. In addition there was close aggregation of sufferers with the hitherto healthy—they ate and drank in common, and both diseased and healthy occupied the same bed. In advising as to measures of prevention Dr. Wheaton gave strong prominence to the need of using the isolation hospital and extending the number of beds; and such use was found to have a marked controlling influence on the spread of the disease. Enteric fever in the face of filthy surroundings and of household negligence such as were met with at Quarry Bank is a very different disease as regards its capacity for spread from person to person from enteric fever under the conditions of cleanliness and care as to the sick and as to the nurses which are found in a well-administered hospital.

Enteric Fever at Loddon, by Dr. S. MONCKTON COPEMAN.—This report is one of considerable length, discussing as it does in much detail the precise origin and means of spread of enteric fever in the town of Loddon, which has some 1100 inhabitants, in the south-east of Norfolk. After an absence of enteric fever extending over a period of no less than ten years some thirty attacks occurred. The means of spread for such a disease were somewhat plentiful, for all the water is derived from surface wells, the depth of most of them not exceeding about four feet. This water must be regarded as of universally bad quality owing to the continued contamination of the subsoil. Then, again, the drains are mere rubble ones, and when opened up in connexion with the outbreak some were found to be blocked. From a soil containing such drains no decent water could be expected; but, as is commonly the case, certain wells acquire a good repute, and this happened to be the position attaching to the Loddon town pump. It became noted, however, that with very few exceptions the houses invaded by enteric fever were in close proximity to a green in the centre of which stood this pump; and not only so, but nearly all those persons who were attacked were known to have obtained their supply from the well over which it stood. Chemical analysis of the water made during the course of the outbreak showed that albuminoid ammonia, nitrates, and oxygen absorbed were in excess, and that the supply was "heavily polluted with sewage and unfit for drinking." This, happily, led to the closure of the well, and with a single exception the disease died out within three weeks of the adoption of this step. How the well acquired its specific property for mischief cannot now be elicited with

any degree of certainty. Had it not been for denials to the contrary, the occurrence could easily have been explained by the cleansing of infected utensils at the pump from the first house attacked and the subsequent emptying out of the rinsings over the site of the well, a practice which is common in the extreme in many districts where surface and other local wells are in use. The report, which is placed on sale, is an interesting one and embodies the complete story of a very detailed inquiry.[1]

On Diphtheria and "Pneumonia" in the Borough of Flint, by Dr. R. J. REECE.—Dr. Reece has submitted a somewhat lengthened report to the Local Government Board on an outbreak of diphtheria and on certain cases of pneumonia, so called, in the borough of Flint. The report enters in considerable detail into all the varied aspects of the sanitary circumstances and sanitary administration of this old borough, and the descriptions given show well how information of this sort may best be set out in the form of a report. The document is placed on sale.[2] The defective administration referred to leads to a number of definite recommendations. One is as to the provision of a proper isolation hospital, for with over 150 cases of diphtheria no attempt was made to use the existing and largely useless building supposed to be available; there was also no proper means of disinfection. But we do not propose to discuss this more administrative part of the report, because Dr. Reece is of opinion that the defective sanitary conditions only had a secondary influence on the diphtheria. The pollution of the soil from ill-constructed privy-middens and the consequent emanations therefrom may, to a certain extent, have prepared the way for an outbreak of diphtheria by causing inflammation of the throat and fauces. Added to this, poverty and want, overcrowding of persons in houses, and lack of cleanliness would assist in lowering bodily vitality and the resisting power against disease. These conditions, coupled with an apathy which could only be accounted for by great ignorance, had their share in causing the serious epidemic of diphtheria which went through 1894 and culminated in over 100 attacks in the first seven months of 1895; but school influence must be regarded as the all-important factor in the case. Indeed, this aspect of the case is discussed with great care, and Dr. Reece sets out in tabular and diagrammatic form the alternating effects of school operations and school-closure at the National and the Roman Catholic schools on the amount of the disease which was notified. How anybody professing to be a sanitary authority could, under the circumstances described, stand by and make no attempt at either efficient isolation of the sick or at the provision of any means for the thorough disinfection of infected articles and premises seems almost unaccountable. The so-called pneumonia seems to have been practically over when it incidentally came under Dr. Reece's notice, but no less than nineteen adults and one child had died from it in less than seven months in this little borough of 5247 people. The precise nature of the ailment could not be made out, and it still remains doubtful whether it was a form of infective pneumonia or whether it was typhus fever. The present medical officer of health—whose partner, the then health officer, died from typhus fever when that disease prevailed in Flint in 1837—was of opinion that the disease was not typhus fever; other practitioners seem to have set it down as a serious sequel to influenza. But one thing is certain—namely, that whether this obscure but fatal infectious disease or the long-maintained prevalence and fatality of diphtheria be in question, the town council have very definite sanitary responsibilities both towards their constituents and to the country generally which they have as yet not properly apprehended.

On the Sanitary Administration of Thurmaston, by Dr. W. W. E. FLETCHER.—This report deals with certain points in the sanitary administration of the little Leicestershire urban district known as Thurmaston which contained 1681 persons in 1891. The water-supply had frequently been complained of, and it is reported to be obtained from 101 wells, commonly about or under twenty feet deep, sunk in back yards. The surroundings of some of these are described, and they include within a few feet of them churchyard, privies, catch-pit from stable, privy cess-pit, disused piggery, &c. The upper soil through which one of the deeper of the wells is sunk consists of twenty feet of gravel and the wells generally are only dry-steined with bricks. As Dr. Fletcher says, it is altogether unlikely that a safe water for drinking purposes can be obtained from such wells. But the old local board and the new urban council will not move, and the local answer to complaint, according to Dr. Fletcher's report, is that there is an "ample supply of good water at Thurmaston." So, also, the sewers and the system of sewerage have been matter of complaint. The sewers, constructed thirty years ago, are circular socket pipes with cemented joints, there are no ventilators of any description and no means of regular flushing. Worse than all, they are provided in their course with catch-pits to retain offensive and decomposing solids, and these were found, as might have been expected, very foul. One sewer outfall is into a ditch, where the sewage stagnates pending removal; another into a ditch, ultimately discharging into the river Soar; two others are into the tail-race of a mill by the canal; and another is direct into the canal. And yet, curiously to say, the Thurmaston representatives can inform the Local Government Board "that there is not any pollution of ditches or of the canal or river." We need not further deal with this report, for it relates in the main to neglect and mal-administration in varied ways. But we would suggest to any persons interested, who have a care for their own health or that of their neighbours, that if the urban district council do not forthwith supply their district with a wholesome water-supply—which is available—and with a proper system of sewerage formal complaint of default should be made to the central authority in the terms of Section 299 of the Public Health Act, 1875.

[1] Eyre and Spottiswoode, East Harding-street, E.C.; John Menzies and Co., Edinburgh and Glasgow; Hodges, Figgis, and Co., Dublin. Price 4*d*. 1895.

[2] Eyre and Spottiswoode, East Harding-street, E.C.; John Menzies and Co., Edinburgh and Glasgow; Hodges, Figgis, and Co., Dublin. Price 8*d*. 1895.

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

In thirty-three of the largest English towns 6393 births and 4029 deaths were registered during the week ending Feb. 15th. The annual rate of mortality in these towns, which had been 18·4 and 20·5 per 1000 in the two preceding weeks, declined again last week to 19·3. In London the rate was 20·3 per 1000, while it averaged 18·7 in the thirty-two provincial towns. The lowest rates in these towns were 12·8 in Croydon, 13·0 in Huddersfield, 13·3 in Derby, 14·7 in Brighton, and 14·8 in Birkenhead; the highest rates were 22·4 in Preston, 22·5 in Oldham, 23·4 in Liverpool, 24·2 in Manchester, and 26·4 in Norwich. The 4029 deaths included 512 which were referred to the principal zymotic diseases, against 457 and 561 in the two preceding weeks; of these, 162 resulted from measles, 142 from whooping-cough, 83 from diphtheria, 55 from scarlet fever, 39 from "fever" (principally enteric), 31 from diarrhœa, and not one from small-pox. No death from any of these diseases was recorded last week in Brighton; in the other towns they caused the lowest death-rates in Hull, Swansea, and Preston, and the highest rates in Birmingham, Norwich, Leeds, and Leicester. The greatest mortality from measles occurred in London, Bristol, Sunderland, Burnley, Norwich, and Leicester; from whooping-cough in Liverpool, Leeds, and Salford; and from "fever" in Derby. The mortality from scarlet fever showed no marked excess in any of the large towns. The 83 deaths from diphtheria included 45 in London, 5 in Birmingham, 5 in Leeds, 3 in Manchester, and 3 in Bradford. No fatal case of small-pox was registered during the week under notice either in London or in any other of the thirty-three large towns. There were 60 cases of small-pox under treatment in the Metropolitan Asylum Hospitals and in the Highgate Small-pox Hospital on Saturday last, the 15th inst., against 70, 74, and 64 at the end of the three preceding weeks; 12 new cases were admitted during the week, against 14, 12, and 6 in the three preceding weeks. The number of scarlet fever patients in the Metropolitan Asylum Hospitals and in the London Fever Hospital was 2944, against 2916, 2879, and 2833 on the three preceding Saturdays; 303 new cases were admitted during the week, against 290, 273, and 285 in the three preceding weeks. The deaths referred to diseases of the respiratory organs in London, which had increased from 314 to 446 in the six preceding weeks, declined to 402 last week, and were 109 below the corrected average. The causes of 46, or 1·1 per cent., of the deaths in the thirty-three towns were not certified either by a registered medical practitioner or by a

coroner. All the causes of death were duly certified in Salford, Oldham, Bradford, Leeds, and in twelve other smaller towns; the largest proportions of uncertified deaths were registered in Portsmouth, Birmingham, Preston, and Huddersfield.

HEALTH OF SCOTCH TOWNS.

The annual rate of mortality in the eight Scotch towns, which had declined in the three preceding weeks from 20·1 to 18·8 per 1000, rose again to 19·1 during the week ending Feb. 15th, but was slightly below the mean rate during the same period in the thirty-three large English towns. The rates in the eight Scotch towns ranged from 11·9 in Leith and 13·6 in Paisley to 20·0 in Glasgow and 24·4 in Greenock. The 557 deaths in these towns included 30 which were referred to whooping-cough, 14 to diarrhœa, 7 to scarlet fever, 5 to measles, 5 to diphtheria, 5 to "fever," and not one to small-pox. In all, 66 deaths resulted from these principal zymotic diseases, against 79 and 77 in the two preceding weeks. These 66 deaths were equal to an annual rate of 2·3 per 1000, and was slightly below the mean rate last week from the same diseases in the thirty-three large English towns. The fatal cases of whooping-cough, which had been 37 and 32 in the two preceding weeks, further declined to 30 last week, of which 18 occurred in Glasgow, and 3 each in Dundee, Aberdeen, and Greenock. The deaths referred to scarlet fever, which had been 10 and 6 in the two preceding weeks, were 7 last week, and included 3 in Aberdeen and 2 in Glasgow. The 5 fatal cases of measles showed a slight further increase upon recent weekly numbers, and included 3 in Edinburgh. The deaths referred to different forms of "fever," which had increased in the three preceding weeks from 3 to 8, declined again to 5 last week, of which 3 were recorded in Edinburgh and 2 in Glasgow. The fatal cases of diphtheria, which had been 6 and 10 in the two preceding weeks, declined to 5 last week, and included 3 in Glasgow and 2 in Dundee. The deaths from diseases of the respiratory organs in these towns, which had been 116 and 106 in the two preceding weeks, were 105 last week, and were less than one-third of the high number recorded in the corresponding week of last year. The causes of 40, or more than 7 per cent., of the deaths in these eight towns last week were not certified.

HEALTH OF DUBLIN.

The death-rate in Dublin, which had declined in the three preceding weeks from 27·4 to 24·6 per 1000, further fell to 22·5 during the week ending Feb. 15th. During the past seven weeks of the current quarter the death-rate in the city has averaged 25·8 per 1000, the rate during the same period being 19·2 in London and 16·9 in Edinburgh. The 151 deaths registered in Dublin during the week under notice showed a decline of 14 from the number in the preceding week, and included 8 which were referred to the principal zymotic diseases, against 7 and 10 in the two preceding weeks; of these, 3 resulted from "fever," 2 from whooping-cough, 2 from scarlet fever, 1 from diarrhœa, but not one either from small-pox, measles, or diphtheria. These 8 deaths were equal to an annual rate of 1·2 per 1000, the zymotic death-rate during the same period being 2·9 in London and 1·5 in Edinburgh. The deaths referred to different forms of "fever," which had declined from 6 to 2 in the three preceding weeks, rose again to 3 last week. The 2 fatal cases of whooping-cough corresponded with the number in each of the two preceding weeks; and the 2 deaths referred to scarlet fever exceeded the number recorded in any recent week. The 151 deaths in Dublin last week included 23 of infants under one year of age, and 39 of persons aged upwards of sixty years; the deaths both of infants and of elderly persons showed a decline from the numbers recorded in the preceding week. Six inquest cases and 3 deaths from violence were registered; and 44, or more than a fourth, of the deaths occurred in public institutions. The causes of 13, or nearly 9 per cent., of the deaths in the city last week were not certified.

"KISSING THE BOOK."—By direction of his Honour Judge Emden the oath on the Testament has been abolished in the Tunbridge Wells county court in favour of the Scottish method with uplifted hand.

THE SERVICES.

MOVEMENTS OF THE MEDICAL STAFF.

BRIGADE-SURGEON-LIEUTENANT-COLONEL G. J. H. Evatt, M.D., Secretary to the Principal Medical Officer, Netley, has received orders to hold himself in readiness to proceed to Hong-Kong and take over the appointment of Principal Medical Officer there. Deputy-Surgeon-General Henry Cayley, F.R.C.S., Professor of Military Medicine in the Army Medical School, Netley, has been granted an extension of appointment for one year from June 4th next.

ARMY MEDICAL STAFF.

The undermentioned Surgeon-Captains to be Surgeon-Majors (dated Feb. 2nd, 1896):—Michael Kelly, M.D., Horace H. Pinching, Robert J. Geddes, M.B., William Kelly, M.D., David V. O'Connell, M.D., Anthony Dodd, George Wilson, M.B., James M. Reid, M.D., Thomas B. Winter, Frederick S. Heuston, F.R.C.S.I., Robert J. A. Durant, George F. Gubbin, Henry P. Birch, Monckton O'D Braddell, M.B., James J. C. Donnet, and Henry M. Sloggett. The under-mentioned Surgeon-Lieutenants to be Surgeon-Captains (dated Jan. 30th, 1896):—Frederick M. Mangan, Charles E. Pollock, William J. Taylor, M.B., Bell W. Longhurst. John H. Rivers, Henry A. Berryman, Ferberd R. Buswell, Frank A. Symons, M.B., John H. Farmer, and Charles T. Samman. The undermentioned Surgeons on probation to be Surgeon-Lieutenants (dated Jan. 29th, 1896):—Frederick Sadleir Brereton, John Charles Baron Statham, Robert Montagu Le Hunte Cooper, M.B., Edwin Charles Hayes, Percy John Probyn, Anthony Henry Waring, Arthur Winsmore Hooper, William Alfred Ward, and Edmund George Forrest, M.B.

INDIA AND THE INDIAN MEDICAL SERVICES.

The Queen has approved of the retirement from the Service of the undermentioned officers:—*Bengal Medical Establishment:* Brigade-Surgeon-Lieutenant-Colonel Joseph MacNaughton Fleming, M.D. (dated April 9th, 1892). Brigade-Surgeon-Lieutenant-Colonel Peter Cullen, M.D. (dated June 1st, 1892). *Madras Medical Establishment:* Surgeon-Major Ferdinand Clarence Smith (dated July 1st, 1895).

Surgeon-Major H. N. V. Harington (Madras), Medical Officer of the Deoli Irregular Force and of the Haraoti and Tonk Political Agency, is appointed to be Agency Surgeon at Alwar, vice Surgeon-Major A. S. Faulkner, who retires from the service. Surgeon-Major Harington will continue to officiate as Residency Surgeon in Meywar until further orders. Surgeon-Major H. St. Clare Carruthers is appointed to be District Medical and Sanitary Officer, South Canara, and Superintendent of Gaol, Mangalore, in succession to Surgeon-Major H. Thomson. Surgeon-Major J. C. Marsden is appointed to be District Medical and Sanitary Officer, Godavery, in succession to Surgeon-Major H. St. Clare Carruthers. Surgeon-Major H. Thomson, M.B., is appointed to be Civil Surgeon, Coconada, in succession to Surgeon-Major J. C. Marsden.

NAVAL MEDICAL SERVICE.

The undermentioned Surgeons have been promoted to the rank of Staff-Surgeon in Her Majesty's Fleet:—Henry Harris, Edward Corcoran, John Lloyd Thomas, James Lawrence Smith, M.B., John Henry Thomas, Frederick John Lilly, John Dowson, George Frederic Dean, M.B., George Welch, and Henry Frederick Iliewicz (dated Feb. 11th, 1896).

VOLUNTEER CORPS.

Artillery: 2nd Middlesex: Surgeon-Lieutenant Atwood Thorne, from the 1st Cinque Ports Volunteer Rifle Corps, to be Surgeon-Lieutenant. *Rifle:* 6th Volunteer Battalion the Royal Scots (Lothian Regiment): Surgeon-Major C. J. Allan to be Surgeon-Lieutenant-Colonel. 3rd Volunteer Battalion the Royal Fusiliers (City of London Regiment): Surgeon-Lieutenant W. Barter, M.D., from the 5th (West) Middlesex Volunteer Rifle Corps, to be Surgeon-Lieutenant. 2nd Volunteer Battalion the King's (Liverpool Regiment): David Smart, M.B., to be Surgeon-Lieutenant. 1st Volunteer Battalion the Lincolnshire Regiment: Surgeon-Lieutenant W. H. B. Brook, M.D., resigns his commission. 3rd Volunteer Battalion the Devonshire Regiment: Surgeon-Lieutenant W. R. Haydon, M.D., to be Surgeon-Captain, to resign his commission, to be permitted to retain his rank and to continue to wear the uniform of the Battalion on his retirement. 3rd (Cambridgeshire) Volunteer Battalion the

Suffolk Regiment:—Surgeon-Lieutenant J. P. Atkinson, M.D., to be Surgeon-Captain. 2nd Volunteer Battalion the Prince Albert's (Somersetshire Light Infantry); Surgeon-Lieutenant H. Norris to be Surgeon-Captain, to resign his commission, to be permitted to retain his rank and to continue to wear the uniform of the Battalion on his retirement. 2nd Volunteer Battalion the Sherwood Foresters (Derbyshire Regiment): Surgeon-Lieutenant-Colonel W. Milligan resigns his commission, also is permitted to retain his rank and to continue to wear the uniform of the Battalion on his retirement.

DEATHS IN THE SERVICES.

Surgeon-General James Ekin, C.B., on the 14th inst., aged sixty-seven. He entered the Army on April 7th, 1854, and was appointed Surgeon in October in the following year. He attained the rank of Surgeon-Major in March, 1873: Brigade-Surgeon, November, 1879; Deputy Surgeon-General, March, 1882; and retired in April, 1884, as Hon. Surgeon-General. He was with the 4th Regiment at the siege and fall of Sevastopol in 1855, and received the medal with clasp and Turkish medal. He served in the Afghan war in 1879–80, accompanied Sir Frederick Roberts in the march to Kandahar as principal medical officer of the Infantry Division, and was present at the battle of Kandahar, being mentioned in despatches, and receiving medal with clasp and bronze decoration. He also served throughout the Egyptian war of 1882 as principal medical officer of the First Division, was present at the battle of Tel-el-Kebir, and was mentioned in despatches, received a Commandership of the Bath, was awarded medal with clasp, third class of the Osmanieh, and Khedive's star.

Deputy Inspector-General of Hospitals Benjamin Swift, M.D., at Dover, aged seventy-nine years. He was appointed Surgeon in April, 1842; Surgeon-Major, January, 1854; Surgeon-Lieutenant-Colonel, April, 1862; and retired with the rank of Hon. Inspector-General, July, 1867.

ARMY AND INDIAN MEDICAL SERVICE COMPETITIVE EXAMINATIONS.

The following is a list of successful candidates for commissions in the Medical Staff of Her Majesty's Army at the recent examination in London:—

E. T. F. Birrell	2740	A. J. MacDougall	2207
A. H. Morris	2308	G. B. Riddick	2135
S. A. Archer	2297	H. Hewetson	2107
E. W. W. Cochrane	2223	K. W. Clements	2000
M. Swabey	2210		

The successful candidates for Her Majesty's Indian Medical Service at the examination held in London on the 7th inst. are as follows:—

H. J. Walton	3186	H. R. Brown	2331
H. Ainsworth	3010	A. N. Fleming	2316
J. W. Cornwall	2683	S. P. James	2305
F. A. Smith	2636	A. E. H. Pinch	2285
J. S. Stevenson	2610	P. Dee	2283
H. A. D. Dickson	2604	F. O. N. Mell	2263
W. G. Richards	2518	F. D. Brown	2259
M. Dick	2513	F. A. L. Hammond	2223
A. Miller	2476		

THE ASHANTI EXPEDITION.

We are glad to learn that the health of the troops returning from Ashanti is satisfactory. The *Manila* arrived at Las Palmas, Grand Canaries, on the 14th, and left the following day. She had one officer and twenty-six men sick, but no serious case on board. The hospital ship *Coromandel* arrived on Feb 16th with eleven officers and fifty-six men sick, all doing well. The deaths of a sergeant of the Ordnance Store Corps and two men of the West Yorkshire Regiment are reported.

The troopship *Malabar* arrived at Portsmouth on the 17th inst. from Bombay with invalids and time-expired men from various regiments stationed in India. The *Malabar* returns to Bombay on the 28th inst. and makes her last voyage to India, hired transports in the future doing the work.

Surgeon-Captain George Hilliard, M.B., B.Ch. Dubl., who attended Prince Henry of Battenberg in his last illness, has been personally decorated by the Queen with the Military Companionship of the Order of St. Michael and St. George.

WE regret to announce the death of Mr. James Edward Tuxford of Boston, Lincolnshire. Deceased, who was in his ninety-third year, qualified as L.S.A. so far back as 1824. He had been a J.P. for the borough of Boston since 1841.

Correspondence.

"Audi alteram partem."

"PHARMACY AND PHARMACOLOGY."

To the Editors of THE LANCET.

SIRS,—As so many fallacious arguments have been adduced in favour of the abolition of pharmacology as an examination subject I should esteem it a favour if you would permit me to say a few words in reply. In the first place, it is stated that the term "pharmacology" has no definite meaning and that no two authorities are agreed as to the interpretation of the word. As a matter of fact that is no difficulty. Pharmacology is the science which deals with the action of drugs and other agents on the healthy organism. It means the same thing as the physiological action of drugs, bearing in mind, however, the fact that it includes all agents capable of producing modifications in the healthy organism, such, for example, as heat, light, and electricity. The observations are made, not with the direct object of curing diseases, but with the view of ascertaining the action of the agent employed. The experiments may be made on man, on one of the lower animals, or on a portion of an animal, such as the isolated frog's heart. The attempt to confound pharmacology with pharmacognosy is puerile. By pharmacognosy we mean the recognition of drugs by their physical and chemical characters with the detection of adulterations. It means practically the same thing as "spotting specimens," an expression in common use amongst students. Secondly, it is asserted that there are no books of pharmacology, and this again is incorrect. Dr. Lauder Brunton's classical work on "Pharmacology and Therapeutics" has been before the profession for over ten years, "Schmiedeberg's Pharmacology" has a world-wide reputation, and a translation of the "Pharmacology" by Binz of Bonn will shortly be issued by the New Sydenham Society. Thirdly, it is said that no examining board has succeeded in introducing pharmacology as an examination subject. I do not profess to be acquainted with the regulations of all the examining boards, but I know from personal experience that an examination in pharmacology, both by written papers and *viva-voce*, has for many years been held in the University of Edinburgh, and I understand that similar examinations are held in the Victoria University. There is no difficulty in setting papers on pharmacology and there is no difficulty in teaching the subject. At the Westminster Hospital for the last four years I have lectured on pharmacology pure and simple, and have experienced no difficulty in finding ample materials for a full summer course. Fourthly, it is objected that pharmacology should not be taught because it cannot be taught practically on account of the restrictions of the Vivisection Act. This argument, if true, would apply equally to physiology, but, as a matter of fact, there is nothing to prevent most of the elementary facts of pharmacology from being demonstrated before a class. Students, for example, are always willing enough to inhale nitrite of amyl, so that the action of the drug on the pulse may be shown by the sphygmograph, and there is no danger in the experiment. There is nothing to prevent me from killing a frog by pithing it, and, when the animal is dead, from demonstrating the influence of muscarine in slowing and finally arresting the heart, and then the antagonistic effect produced by atropine and other members of that group. Even the opponents of pharmacology would hardly maintain that experiments on dead frogs are prohibited by the Act. Then, again, the influence of strychnine, brucine, thebaine, and other tetanisers can be perfectly well shown on pithed frogs, whilst Roy's apparatus in its various forms and modifications is admirably adapted for demonstrating the action of digitalis and its congeners on the isolated frog's heart. The effects of chloroform, ether, and other anæsthetics can be shown in the same way. Experiments illustrating the effects of various drugs on ciliary motion are equally available; in fact, pharmacology is just as capable of being taught practically as is physiology. Finally, it is argued that every physician is capable of conducting examinations in pharmacology and consequently that the subject should form a portion of the examination in medicine. Theoretically, of course, every physician is an accomplished physiologist and anatomist and

is equally well up in chemistry, toxicology, forensic medicine, and hygiene, but we know practically that the intimate knowledge of these subjects necessary for examination purposes is confined to a few who make a specialty of them. I know many excellent examiners in medicine who would cut a sorry figure if they were to attempt a *viva-voce* examination in pharmacology, and who would have a very uncomfortable quarter of an hour if they had to tackle a student even moderately well up in his work.

It may be said, What is the good of pharmacology, and why should a student be required to know anything about the action of drugs? The answer is because pharmacology is the basis of therapeutics and of all rational treatment, and that a medical man who does not know the principles on which he prescribes is an empiric and little better than a quack. These gentlemen who have such a profound contempt for the physiological action of drugs do not show up very brilliantly when called in to a case of poisoning. They go hunting round for some little text-book to find out the antidotes, but as far as their own personal knowledge goes they are of no use whatever. In a few years' time if this kind of thing goes on we shall have a race of practitioners growing up who cannot write a rational prescription, and when our patients leave us and resort to the advertising chemist and the patent medicine vendor we shall know whom to thank for the degradation of our profession.

I am, Sirs, your obedient servant,

WILLIAM MURRELL, M.D. Brux.,
Lecturer on Pharmacology and Therapeutics at the Westminster Hospital.

Welbeck-street, W., Feb. 16th, 1896.

"FUNCTIONAL APHONIA IN MAN; TREATMENT, ETC.; WITH SPECIAL REFERENCE TO SO-CALLED VARICOSE VEINS AT THE BASE OF THE TONGUE."

To the Editors of THE LANCET.

SIRS,—In the concluding paragraph of his article in THE LANCET of Feb. 15th on Functional Aphonia with Special Reference to the So-called Varicose Veins at the Base of the Tongue Dr. Tilley asks: "Does such a condition [as varicose veins of the tongue] exist, and, if so, with what frequency?" My experience is that enlargement of the veins at the back of the tongue often exists in persons over fifty years of age in such degree as to be fairly described as "varicose." But while in a good many cases they are coincident with morbid states of the pharynx and larynx, and a few may be contributory factors in relation to various morbid sensations in the throat, I have found that the so-called "varicose veins" may be more frequently observed in patients who do not complain of any throat trouble at all, and that their importance has been greatly exaggerated in some quarter.

At one time some elongation of the uvula was constantly accused of being the source of many and diverse affections of the throat, then "varix" of the tongue was made to bear the brunt, but I believe "turbinal varix" now bears the palm. I have no manner of doubt that all these affections have a very real existence, and that they may sometimes be the main or contributory factors in the production of conditions which demand active treatment, but I am equally confident that the great majority of laryngologists would strongly oppose the tendency of a few observers to overestimate their clinical importance.

Dr. Tilley's cases are very interesting and instructive, and illustrate the advantage and importance of taking a broad-minded and physicianly view of patients whose symptoms are localised in the throat. I am, Sirs, yours truly,

P. WATSON WILLIAMS, M.D. Lond.,
Physician in Charge of the Throat Department, Bristol Royal Infirmary.

Feb. 16th, 1896.

To the Editors of THE LANCET.

SIRS,—Dr. Herbert Tilley, assistant surgeon to the London Throat Hospital—in the Medical Directory he calls it the London Ear and Throat Hospital—"names no names," but I fail to see why he should have abstained from stating that it is the Central London Throat, Nose, and Ear Hospital where the opinion is held that varicose veins at the base of the tongue are not the sole cause, as he asserts, but part of a certain pathological condition "at the root of many laryngeal and pharyngeal symptoms," and that galvano-cautery is an appropriate treatment; for he diligently attended the practice of this hospital for no inconsiderable time, and, indeed, acted as clinical assistant to one of the medical staff. Such a view was first promulgated by me in 1880 in a communication made at Milan as the result of investigations of a series of cases the notes of which were taken by my present colleague, Dr. Dundas Grant, who then acted as registrar. The question has since formed the subject of communications to the Philadelphia Medical Society in 1887, to the British Medical Association at Birmingham in 1890, and has been discussed in the second, third, and fourth editions of my systematic work, published respectively in 1887, 1890, and 1893. A further article on the subject, full of statistical detail, is to be found in the current number of the *Liverpool Medico-Chirurgical Journal*, reference to which will show that my views are shared by workers of eminence in France, Germany, and the United States.

Opinions announced by one qualified before Dr. Tilley was born, and now so generally upheld by colleagues and independent authorities, are not likely to be upset by the report of three cases in which *ex-parte* statements as to former failures by unnamed specialists are quoted, and the *rôle* of the *Deus ex* is assumed with all the credulity and enthusiasm of the young graduate.

I am, Sirs, yours faithfully,

Mansfield-street, W., Feb. 15th, 1896. LENNOX BROWNE.

To the Editors of THE LANCET.

SIRS,—I wish to say a few words regarding the cases of Dr. Herbert Tilley in THE LANCET of Feb. 15th. It was during his attendance at my practice at the Central London Throat, Nose, and Ear Hospital, and acting as my clinical assistant, that he heard about "varix" of the tongue as one of the objective causes for many subjective throat symptoms of the nature of "globus hystericus," or, as we now term it, "faucial," "pharyngeal," and "laryngeal tenesmus"; but I have never taught, nor have I till now heard, that this condition is held responsible for "functional aphonia." On the other hand, I have seen many cases presenting very distressing symptoms relieved by recognition of a complex pathological condition of which "lingual varix" is a pretty constant element. I am, Sirs, yours faithfully,

Harley-street, W., Feb. 17th, 1896. PERCY JAKINS.

To the Editors of THE LANCET.

SIRS,—Referring to Dr. Herbert Tilley's first case of functional aphonia in THE LANCET of Feb. 15th I read that "the base of the tongue was cauterised" a month or six weeks before Dr. Tilley saw the patient, when "there were no enlarged veins at the base of the tongue or any excess of lymphoid tissue"; but, unless Dr. Tilley desires to imply that such a condition had never existed, surely his examination proves that, so far as varicose veins were concerned, they had been very effectually destroyed by the cauterisation by the patient's former attendant.

I am, Sirs, yours faithfully,

W. G. HOLLOWAY, M.D. Cantab.,
Assistant Surgeon to the Central London Throat, Nose, and Ear Hospital.

Somerset-street, W., Feb. 17th, 1896.

To the Editors of THE LANCET.

SIRS,—I have acted for eighteen months as clinical assistant to the Central London Throat, Nose, and Ear Hospital, and for a further two years and a half as assistant registrar, my attendence being on the days of Dr. Orwin. Although I have never been taught that "functional aphonia" was dependent on varicose veins at the base of the tongue, or that galvano-cautery was the appropriate treatment, I have formed quite opposite conclusions to those of Dr. Herbert Tilley as to the importance of this condition as an etiological factor in many obscure pharyngeal and laryngeal symptoms. I have seen undoubted examples of this condition at the hospital, and as registrar have had to record quite a number. I have also seen cases where treatment directed to the varicose veins resulted in relief to the symptoms complained of. In the case of a medical *confrère*, seen by both Dr. Orwin and Mr. Lennox Browne, the varix was so pronounced as to be typical of the "black-currant-like" aspect described and figured by the latter observer, to

whom the profession is indebted for the first observations on the subject.

I am, Sirs, yours truly,

Feb. 17th, 1896. PETER H. ABERCROMBIE, M.D. Glasg.

"CHROMIDROSIS."

To the Editors of THE LANCET.

SIRS,—In THE LANCET of Feb. 15th two cases of this phenomenon were noted by Dr. F. W. A. Stott, and his conclusions seemed to point to an organic origin. His cases might be compared with one occurring in my practice about five years ago. The staining agent in my case gave a magenta colour and was firmly fixed in the clothing as well as the hair and nails. It did not appear to be of a contagious nature or to be connected in any way with the man's occupation. Unfortunately, only chemical tests were applied to the stained linen and with negative results. The man was, however, taking iodide of potash, and upon discontinuing the drug the unpleasant symptoms subsided only to return when his old medicine was again taken. It would be interesting to hear the result of the same drug in Dr. Stott's cases.

I am, Sirs, yours truly,

Feb. 16th, 1896. G. H. TEMPLE, M.B. Edin.

'THE MANNERS OF A COUNTY COUNCILLOR."

To the Editors of THE LANCET.

SIRS,—I thank you for your kind paragraph on Mr. Burns's remarks about me at the last meeting of the London County Council. I explained my position in my letter to the *Times* of the 16th inst. as follows:—"The fees I charged were on the scale agreed upon between the solicitor employed by the London County Council and myself in a former case—the London water bills—in which I was consulted by the Council (and in which the fees were paid), with these two differences: (1) That, whereas in the former case I was allowed a retaining fee, in this case I did not ask for one; and (2) that, whereas in the former case my evidence was not required, in the one about which the discussion arose I was both examined and cross-examined at length." I consider that the remarks of a man who, apparently, does not even know the meaning of the words he so recklessly uses are best treated with the contempt of silence.

I am, Sirs, yours faithfully,

Savile-row, Feb. 18th, 1896. W. H. CORFIELD.

"THE OBJECTS AND LIMITS OF OPERATIONS FOR CANCER."

To the Editors of THE LANCET.

SIRS,—I have read with great interest the first of Mr. Watson Cheyne's Lettsomian Lectures on the Operative Treatment of Cancer. As he has devoted some space to my views on the removal of cancer of the breast I hope you will allow me the opportunity of correcting one or two misapprehensions. So far from being an opponent to "thorough" operations for cancer of the breast I have long been in the habit of performing the most thorough operations for cancer of the breast which are now practised, short of amputating at the shoulder-joint and dividing the clavicle, neither of which I have ever performed for cancer of the breast. My book, to which Mr. Cheyne alludes, was written ten years ago, and published in 1887. The operations of which he *now* speaks as "thorough" were not performed before that time, and the anatomical and pathological reasons for the operations of the present day were not known. I objected to the larger operations which were recommended in all cases of cancer of the breast in those days because they were not based on sound pathological considerations; they had been attended with considerable danger compared with even much larger operations in these days, and did not to my mind afford sufficiently larger guarantee of cure than the smaller operations which were performed with the removal of an equally wide area of apparently healthy tissues in every direction around the tumour. During the last ten years our knowledge of the pathology of cancer of the breast has been largely increased, particularly by the investigations of Heidenhain, to which Mr. Cheyne has alluded. From these we now know much more definitely the course and line of invasion of the disease, and, consequently, how to make operations really "thorough," or as thorough as such operations can be made.

I am unpleasantly reminded by Mr. Cheyne's lecture that a second edition of my book is due, and that I should have prepared it ere this had I not been so busily engaged as to allow me very little time for writing. My preface says: "At the best it can only offer a faithful reflection of the relation of surgery to cancer at the moment at which it is written, and I cannot hope that it will occupy a lasting place in the literature of the subject."[1]

I am, Sirs, yours truly,

Feb. 17th, 1896. HENRY T. BUTLIN.

"ROENTGEN'S RAYS AS A CURE OF DISEASE."

To the Editors of THE LANCET.

SIRS,—Since my letter suggesting the possibility of curing diseases due to microbes by means of Roentgen's rays found a place in the issue of THE LANCET of Feb. 1st I have been engaged in experiments for testing the practical possibilities in this direction. By the influence of Mr. Johnson, of the firm of Messrs. Dawson and Co. of Berners-street, I was able to secure the use of a suitable apparatus in the workshop of Messrs. Miller, Woods, and Co. of Gray's-inn-road, Mr. Miller, of the latter firm, helping me in the electrical part of the experiments. The street alternating current of between 50 and 100 volts was passed through a converter, condenser, and a Tesla's coil, with the result that its voltage was raised, Mr. Miller tells me, to about 25,000, and the frequency of breaks to a very high degree. The amount of current used was such as would keep two sixteen-candle power electric lights going. This current, passing through a Crooke's tube, produced the usual faint greenish light in the tubes which indicates the generation of Roentgen's rays. With this apparatus, powerful in its way, very fair shadow pictures were obtained, but an exposure of fifteen minutes was found necessary with a Cadette lightning plate. The opacity of several substances was tested; aluminium and glass of equal thickness were, contrary to general opinion, found to be about equally opaque. In this connexion it should be stated that aluminium is capable of being used in much greater tenuity than glass—a fact of no small importance; for the "x" rays, though apparently neglecting most laws of radiant energy, conform to the law that the resistance to penetration of all the same substances are proportional to the logarithm of their thickness.

It is difficult to decide what kind of plate is best adapted to shadow photography because great differences of results have been obtained under apparently the same circumstances. In my experiments the Cadette plates were used and the lightning plate gave a much better result than one of less (one-third) the rapidity. It will be seen that several elements enter into the production of Roentgen's rays—the quantity and tension of the current, the frequency of breaks, and the efficiency of the Crooke's tubes. The greatest progress now being made towards increased intensity of ray is in the construction of Crooke's tubes; it is found that a rise in the degree of vacuum increases the intensity of the rays emitted, but, on the other hand, currents of frequent breaks appear to be destructive of tubes so constructed. Mr. Swinton informed an audience at the Royal Photographic Society that he had obtained the best results by laying aside the Tesla's apparatus and using a Ruhmkoff's coil, which produced a much lower frequency of breaks, the Crooke's tubes enclosing a very high vacuum.

He was thus enabled to get a good shadow photograph of a hand in just under one minute. If, however, a demand for apparatus to produce Roentgen's rays should arise such as to offer an adequate reward, no doubt physicists would not be long in producing a machine that would be as superior in force to those now in use as the present lighthouse lantern is to the old toy Leyden jar. Tesla some years ago, by a specially constructed dynamo &c., produced a current of such tension as with infrequent breaks would strike dead anyone through whom it passed, but whose frequency of breaks was so great that it passed without harm through a chain of human subjects, and at the same time illuminated

[1] On the Operative Surgery of Malignant Disease, 1887. London: J. & A. Churchill.

a powerful electric light. It was reported by one observer, Dr. Hedley of the London Hospital tells me, that the organisms connected with the production of pus were markedly affected by such a current, a consideration bearing upon the possible value of ethereal energy in circuit through the body, a subject a little removed from the present one. The lightning plate exposed by me for fifteen minutes was still found under-exposed, whereas the same plate would under ordinary sunlight be fully exposed in a small fraction of a second. This, viewed in connexion with Professor Marshall Ward's experiments showing that two hours' exposure to sunlight was necessary to destroy pathogenic germs, by analogy would accord a very feeble possibility of the Roentgen rays now produced possessing germicidal properties of practical value. My experiments in this direction proved so far as they went a negative which was almost a foregone conclusion. An impure cultivation of diphtheritic bacilli (kindly obtained for me by Dr. Hugh Walsham, thanks to whom also is due from me for other help in my investigations) was exposed in a test tube in an incubator at 35° C. for twelve hours to Roentgen's rays produced by the apparatus described above. Considerable growth took place during these twelve hours and continued on further incubation. Exposure to the Roentgen rays had failed, as might be expected, to influence the growth of the bacilli to any appreciable extent. A pure cultivation of tubercle bacilli exposed at the same time showed a vigorous power of growth afterwards.

During these exposures, on account of an escape of electricity in one way and another, an intense odour of ozone was perceptible in the incubator and around it; the ozone apparently, however, was unable to penetrate the cotton-wool plug of the tube and affect the germs. A somewhat interesting result was obtained by photographing by Roentgen's rays the cultivation of diphtheritic bacilli sideways. The turbid blood serum gave a faint shadow, but the—to the eye opaque—colony of germs over a quarter of an inch thick gave no signs of existence. The rays passed through them as light through glass. Experiments like these are not, of course, final, but on the whole one is forced to the conclusion that with our present methods radiant ethereal energy is powerless against pathogenic organisms. At the same time, increased knowledge and improved apparatus may place the cure of disease by radiant energy within the possibilities of the future.

I am, Sirs, yours faithfully,

T. GLOVER LYON, M.D. Cantab.,
Senior Assistant Physician to the Victoria Park Chest Hospital.

Feb. 17th, 1896.

"WOMEN AND THE PROFESSION IN INDIA."

To the Editors of THE LANCET.

SIRS,—Referring to the letter of Mr. Dhingra in THE LANCET of Feb. 15th, which pretends to prove that there is no great need for lady doctors in India, surely Mr. Dhingra is aware that there are many cases where a woman, in whatever stage of normal or abnormal labour, is surrounded with grave dangers affecting the safety of her life and is certainly in want of skilled professional help at such times. He is also aware that qualified midwives cannot give such aid without a knowledge of medicine and surgery. Mr. Dhingra does not mean to say that these poor women should miserably perish without professional aid, which, as he admits, is only possible for women to render. It is to be regretted that Mr. Dhingra has taken such an unkind view of Lady Dufferin's noble scheme. Lady Dufferin's name will be cherished by her sisters of that vast empire to whom she has been a generous benefactress with mingled feelings of affection and gratitude for alleviating their sufferings.

I am, Sirs, yours faithfully,

J. F. D'ABREU, L.R.C.P. Edin., &c.

Handsworth, Feb. 15th, 1896.

"THE SOCIAL EVIL AND THE PROPAGATION OF VENEREAL DISEASES."

To the Editors of THE LANCET.

SIRS,—I read with much interest the article in THE LANCET of Feb. 1st on the above subject. In this you show the excellent result of the stringent enforcement of the Contagious Diseases Acts in Malta, but you only give the statistics of two British battalions. I find that the British Committee of the Federation for the Abolition of State Regulation of Vice maintain that the worthlessness of the Contagious Diseases Acts is proved both in England and India by the Memorandum of the Army Sanitary Commission. On referring to the Blue-book (Return 318) in which the Army Sanitary Commission report is published I find that the Commission, while advising that the compulsory lock hospital system in India be not re-instituted, do advise that women should be expelled from cantonments "when they are known to be diseased and refuse to submit to treatment in hospital." In other parts of the Blue-book I find recorded the opinions of judges, commissioners, registrars, and magistrates in various parts of India, and, as far as I have been able to discover, with one exception they are all in favour of the Contagious Diseases Acts. I have many friends, medical and combatant, in the Services, and where I have discussed the matter with them I have found them unanimous in favour of the Acts. I think that you are doing good service by referring to the matter at the present time, and I cannot help thinking that but for the apathy and want of organisation amongst medical men the Acts would never have been repealed. I should be obliged if you would inform me where I could obtain a full history of the working of the Acts, and if there is any society working for their re-enactment.—I am, Sirs, yours truly,

ATWOOD THORNE, M.R.C.S. Eng.

Dunster House, Mincing-lane, E.C., Feb. 8th, 1896.

*** If our correspondent will communicate with Messrs. Eyre and Spottiswoode he will obtain the blue-books he requires, and at a moderate cost.—ED. L.

PEROXIDE OF HYDROGEN.

To the Editors of THE LANCET.

SIRS,—Having very nearly been seriously injured by the explosion of a bottle of peroxide of hydrogen vaunted as a germicide, which was sent to me from America some weeks ago, I think it is right to warn my brethren against the destructive potentialities of this fluid. The bottle in question had been put away in a cupboard, and without obvious or discoverable cause exploded with great violence after it had lain undisturbed since it came into my possession. The fragments of the label having been pieced together I was able to find the address of the sender, Marchand of New York, and in reply to a letter telling what had happened he wrote that I must have failed to observe the printed directions, which order the preparation to be kept "in a cool place so as to prevent the slight decomposition which always takes place when the temperature is high, producing a heavy pressure in the bottle." He was right in saying that I had not read the instructions, but wrong in the assumption that the bottle had not been kept in a cool place. My colleague, Mr. Laurie, Lecturer on Chemistry at St. Mary's Hospital, tells me that "alkaline solutions and strong solutions decompose rapidly. A strong solution decomposes rapidly at 20° C., explosively at 100° C., and I can only suppose that owing to the solution being alkaline or too strong the peroxide had decomposed, the oxygen accumulating and finally bursting the bottle." It is certain that the bottle in my possession had not been exposed even to the lower of these degrees, 20° C., equal to 68° F. By his advice, also, I wrote to Messrs. Burton and Sons of Bethnal-green upon the subject, and their reply is much to the point. "The sample of peroxide of hydrogen which exploded," they write, "must have been very imperfect—probably alkaline—a condition that induces liberation of oxygen; the pressure becomes more than the bottle can resist, and consequently it gives way. In the early days such things did happen occasionally, but with us it is quite a thing of the past. The strength generally used is 12 vol.—i.e., 1 litre contains 12 litres available oxygen. We send out some thousands of gallons weekly for technical purposes, and, as we make it, consider the risk about the same as if it were water." It is obvious, therefore, that under ordinary conditions peroxide of hydrogen is free from explosive tendencies; but nevertheless it is a substance which, without the owner's knowledge, may have other and less harmful qualities than those which, rightly or wrongly, are attributed to it as a germicide, and I ask you to be so good as to put this, my experience, on record as a warning to those who may keep it for use in surgical practice.

I am, Sirs, yours obediently,

Feb. 18th, 1896. HERBERT W. PAGE.

*** As alkalinity appears to be the source of mischief, it might perhaps be a useful precaution to carefully neutralise,

if necessary, say with a few drops of hydrochloric acid, the specimens of peroxide immediately they are received? This would probably minimise the risks of explosion and *a priori* preserve the strength of the solution.—ED. L.

"DEATHS UNDER ANÆSTHETICS."

To the Editors of THE LANCET.

SIRS,—Permit me to reply to your remarks on the death that recently occurred under anæsthesia at the Birmingham Hospital for Women. The "sister in charge" is no "irresponsible nurse," but a highly trained lady who for the last seven years has discharged with great ability all the responsible duties of a house surgeon. She has entire charge of the staff of nurses (twelve in number). She superintends the preparation of the patients, instruments, sponges, &c., before operation, she administers the anæsthetic during the operation, and has full charge of the after-treatment of the cases after the operation. She has now administered anæsthetics in 1700 operations, including many cases which were quite as bad as the one in question, and the latter is the first in which an accident has happened. The "sister in charge" is one of the most skilful anæsthetists whom it has been my fortune to meet. Had I to take an anæsthetic I would infinitely prefer her to give it than one of the raw, inexperienced youths who do duty in some hospitals. Lastly, you condemn as unsafe the administration in Clover's inhaler of the mixture of ether (two parts) and chloroform (one part). Here I beg respectfully to differ from you. For many years it has been used most extensively in this hospital as well as in the private practice of the members of the staff. I am sure that my colleagues will agree with me when I assert that the method you so condemn is of all the safest and the best.—I am, Sirs, yours faithfully,

CHRISTOPHER MARTIN, M.B. Edin., F.R.C.S. Eng.

George-road, Edgbaston, Birmingham, Feb. 17th, 1896.

*** Our correspondent does not shake our opinion that a nurse, however "highly trained," is not a proper person to administer anæsthetics, or, we may add, to discharge "all the responsible duties of a house surgeon." An unqualified person (we are presuming, of course, that the "sister-in-charge" is not a registered medical practitioner) has no right to act as the house surgeon of a hospital or take "full charge of the after-treatment of the cases after operation." What next? The opinion of the General Medical Council on this point will, we hope, be elicited at their May meeting. For our part, we must insist that nurses, whether "sisters-in-charge" or of inferior rank, are merely *nurses*, and not *medical practitioners*—a difference which our correspondent seems utterly to ignore. Any individual preference which Mr. Martin may have for receiving his anæsthetic at the hands of an unqualified person cannot alter the legal status of that person or lessen the responsibility. Nor can a predilection for the administration of a chloroform-containing compound from a closed inhaler lessen the undoubted risk of the proceeding.—ED. L.

THE CHURCH AS A MEDICAL AID SOCIETY.

To the Editors of THE LANCET.

SIRS,—I should be grateful to have your views as to the fairness of this system. We have here a medical club on the following terms: Families, including all children under fourteen, 2*d.* per week; excluding the father, 1½*d.*, and above fourteen ½*d.* per week. This very inadequate payment is supplemented by a subscription from our better classes, adding a bonus of 4*d.* to every shilling thus paid. A body of district visitors collect the money weekly, calling at each house in the place, and naturally using their influence to procure fresh members. The attendance on this club is restricted to one out of the two practitioners here, and naturally this cheap and bounty-fed organisation, with its plentiful staff of "collectors," renders private practice among the poorer classes an impossibility, and month by month patients well able to pay a small amount drift away to obtain its attractive benefits. I should like to ask you, Sirs, in what way this differs from a medical aid society with innocent and no doubt well-meaning district visitors substituted for the paid canvassers of such a body, or whether it is not open to an equally grave objection.

I enclose my card, and remain, Sirs, yours faithfully,

X. Y. Z.

*** The scheme is open to much objection. It involves canvassing the patients of other medical men. The payments are inadequate. We see no provision for the exclusion of the unfit. The one practitioner favoured should object to it on these grounds. It perhaps differs from a medical aid society in that no profits accrue to the society.—ED. L.

THE BATTLE OF THE CLUBS.—XXII.[1]

(FROM OUR SPECIAL COMMISSIONER.)

(Continued from p. 454.)

LEICESTER:—THE ORGANISATION OF THE PROFESSION AT LEICESTER.

THOUGH the Leicester and Leicestershire Provident Dispensary is the largest and most important of the medical aid societies in Leicester there are many other similar organisations. Some of these are purely commercial undertakings, run for the purpose of securing life insurances. The Star Benefit Society has, I was told, sixteen medical officers on its list, and twenty medical men are employed by the Manchester Unity of the Oddfellows. Then there is a society called "The People," started in direct opposition to the Leicester Provident Dispensary. The Rev. Mr. Isaacs at one time led an agitation against the latter dispensary. He held open-air meetings in the Market-place, denounced the dispensary in no measured terms, and smote this parent institution hip and thigh. The fact that the dispensary took 4*s.* 4*d.* from its members and only gave 1*s.* 9*d.* to its medical officers was a good handle for attack. The Rev. Mr. Isaacs insisted that as workmen were principally concerned there should be workmen on the managing committee. He further urged there should be no fines for arrears, as it was not righteous to punish men for being unfortunate. He disapproved of the quarterly tax of 2*d.* imposed on the members of the dispensary, and considered that if such a sum was levied it should go to the medical officers who did the work instead of being absorbed by the management department. Nevertheless, the society, started under the impulsion of this agitation, has not proved a success. At one time "The People" had some 6000 members, but it has gone down a great deal of late; and, as it is said that it has not been properly registered, its medical officers cannot recover by law the sums due to them. According to the rules of the Leicester Provident Dispensary members in cases of emergency are not obliged to send for the medical man on whose list they are placed, but may call in the nearest medical man in the service of the dispensary. This rule, which gave the medical officers a great deal of trouble, was not enforced by "The People" society. It was urged that in real cases of emergency people could generally pay the usual fee, or else they must go to the trouble of fetching their regular medical attendant.

Several medical men expressed their conviction that the Leicester Provident Dispensary was responsible for the prevalence of medical aid societies throughout the town. It was the parent society and should have been open to all medical men. As it is, when a new and young medical man finds that the leading members of the profession are attached to the Leicester Provident Dispensary, but that its

[1] The previous articles on this subject were published in THE LANCET on the following dates: (1) Aug. 24th, 1895, Brussels; (2) Aug. 31st, 1895, Brussels; (3) Sept. 21st, 1895, Portsmouth; (4) Sept. 28th, 1895, Portsmouth; (5) Oct. 5th, 1895, Eastbourne; (6) Oct. 12th, 1895, Lincoln; (7) Oct. 26th, 1895, Lincoln; (8) Nov. 2nd, 1895, Grimsby; (9) Nov. 9th, 1895, Bexhill-on-Sea; (10) Nov. 16th, 1895, Hull; (11) Nov. 23rd, 1895, Hull; (12) Dec. 7th, 1895, York; (13) Dec. 14th, 1895, Northampton; (14) Dec. 21st, 1895, Fermanagh Medico-Ethical Association; (15) Dec. 28th, 1895, Northampton; (16) Jan. 4th, 1896, Birmingham; (17) Jan. 18th, 1896, Birmingham; (18) Jan. 25th, 1896, Club Practices in Rural and Mining Districts; (19) Feb. 1st, 1896, The Formation of a Provident Medical Association at Folkestone; (20) Feb. 8th, 1896, The Manchester Medical Guild and Medical Aid Associations; (21) Feb. 15th, 1896, The Leicester and Leicestershire Provident Dispensary.

doors are closed against him, what is he to do? In despair he joins some medical aid company, and thus sells his science to the promoters of a life insurance speculation. Some medical practitioners have, however, started fairly successful private medical dispensaries of their own. One medical man receives from this source £120 a year. It appears, however, that out of the £120 paid by the members of this private dispensary only half that sum remains as net profits. On the other hand, it not unfrequently occurs that a patient complains because he is kept waiting &c. In that case the medical man tells him to ring at the other bell, when he will receive more prompt and careful attention, but be charged the usual fee. It often happens that the hint is accepted, and the "club" patient thus becomes a private patient.

To deal with the manifold grievances that arise out of club practice there is as yet but one medical organisation, "The Leicester Medical Society." This is, however, a small and a somewhat exclusive body. It can only render service by taking the initiative in organising something larger and that shall embrace the whole of the profession. It was originally a book society and has now a circulating library. To be a member it is necessary to have been practising at least one year in the town. Meetings to discuss scientific papers are held every month during the winter. With regard to medical ethics, all that has been done so far has been to pass a resolution concerning homœopaths. At present the Leicester Medical Society consists of forty-seven members, and they have determined to convoke a general meeting of the entire profession. Very sanguine hopes are entertained—at least, in some quarters—as to the likely results of this effort at organisation. Some medical men with whom I discussed the question are in favour of establishing one single provident dispensary under medical management, which they imagine will sweep away all the existing dispensaries, medical aids established by insurance companies, and the medical aid section of the friendly societies. This seems a somewhat large order, but it is pointed out that the population of Leicester is, by reason of its prosperity and intelligence, well able to understand the advantage of such a reform. The workmen of Leicester are themselves so well organised that they will appreciate the medical man's grievances and be flattered by the fact that the medical profession should follow their example and also seek to organise. The respectable workers will be on the side of the medical men. Many a workman feels ashamed to think that, as a member of the Leicester Provident Dispensary, he is a recipient of public charity. He pays enough for the dispensary to be self-supporting without any appeal to charity; and if the 4*s.* 4*d.* he gives is not enough he can very well afford to subscribe more. These men have their trades-unions and their political clubs; they have a high sense of independence and dignity; they subscribe largely to all the forward movements of the country; and, even abroad, there is never an international labour congress without representatives of the Leicester trades. The Leicester workmen are inured to the spirit of discipline and self-sacrifice that combination teaches, and thus they have fought for, obtained, and maintained a high rate of wages. This may be said not only of the men but also of the women workers. It is therefore humiliating for them to think that the medical men who attend them in sickness receive only 1*s.* 9*d.* per annum, and that even this miserable sum cannot be paid without an appeal to the charitable. If the matter is properly explained the workmen of Leicester will welcome any proposal that will tend to free them from this ignominious position. There is no depression of trade; there is no need of charity. For those few families or individuals who are really in a state of abject poverty there are genuine charities to which they can appeal and where the required help can be obtained.

As for the life insurance companies they only give medical aid because they are compelled to do so as a means of competing one against the other. They do not make much or any profit out of this branch of their work and would be glad enough to give it up. Of course, no one company will take the first step. The system must be abandoned simultaneously by all the companies. If the movement was general most of the life insurance companies would welcome its success. For instance, the Royal London and British Workman Insurance Company was compelled to establish a medical aid branch so as to compete with its rivals, but it would joyfully give this up if possible. It should be noted that if a person who has insured his life and also pays for medical aid allows the premium on his life insurance to lapse the canvasser no longer collects the money for medical aid. Consequently, when he falls ill he receives no medical attendance, and then he imagines that he has been made to pay for nothing, that the medical officer has got money from him and done nothing in return. The member is willing to continue his payments for medical aid, but the company refuses to accept them, and of course the member comes to the conclusion that this conduct is approved by the medical man. Nothing of this sort could happen if the profession themselves organised a provident dispensary under their own management.

Undoubtedly the profession, if united action could be secured, are masters of the situation. But will every medical man in Leicester consent to give up his club practice, whatever it may be, and place himself instead on the list of active medical officers to the provident dispensary to be established and managed by the profession? It is to be feared that the medical profession has not yet been sufficiently trained in the discipline of strong organisations. Individual instincts and selfishness might get the better of the feeling of professional solidarity. But, nevertheless, if this can be done anywhere it is by a population such as that of Leicester that the motives of the profession would be best appreciated and most approved.

To the Editors of THE LANCET.

SIRS,—Will you kindly warn, through the columns of THE LANCET, any medical man who may feel disposed to answer an advertisement from the National Medical Aid Company, Limited, or Liverpool Victoria Legal for a medical officer for Leicester, that any such post here is at present under dispute?

I am, Sirs, yours faithfully,

Leicester, Feb. 16th, 1896. ERNEST W. HAYDON, M.B. Glasg.

P.S.—I enclose a circular notice (copy) issued convening a meeting of the whole local profession.

"Welford-place, Leicester, Feb. 4th, 1896.

"DEAR SIR,—It has been felt by many members of the medical profession in this town that the relations between medical men on the one hand and dispensaries, medical aid societies, and clubs on the other are far from satisfactory. In several large towns these relations have recently been materially improved both in monetary and in other respects by the united action of the entire resident profession. With a view to friendly consultation in this matter, and also with the object, if found practicable, of establishing an association comprising *all the qualified medical practitioners* resident in the borough of Leicester for the express purpose of dealing with these matters, I beg to request your attendance at a meeting to be held at the Coöperative Hall, High-street, on Thursday, Feb. 20th, at 3.45 P.M.—I am, Sir, yours truly,

"C. H. MARRIOTT."

BIRMINGHAM.

(FROM OUR OWN CORRESPONDENT.)

Dinner to Sir Willoughby Wade.

ON the 17th inst. a complimentary dinner was given to Sir Willoughby Wade to commemorate the honour of knighthood conferred upon him at the beginning of the year. A large and distinguished company of medical men and prominent citizens took part in the occasion. The chair was taken by Sir Henry Wiggin, Bart., who proposed in felicitous terms the health of the guest of the evening and gave a short sketch of the public work in which Sir Willoughby Wade had been engaged during his residence in the town. He noted with satisfaction the universal approbation of the event by a large circle of the profession and public, and paid a tribute to the many useful services in which Lady Wade had also engaged. An illuminated address was then presented to Sir Willoughby Wade, who made, amid loud applause, a graceful acknowledgment of the kindness shown to him and expressed his appreciation of such an honour being so highly estimated by his numerous friends.

The New Photography.

Birmingham has not been behindhand in seeking to verify the experiments made by this new process, and to profit by the results obtained. Mr. Hall Edwards has been active in pursuing work in this direction, and at Mason College Professor Poynting and Professor Allen have directed their attention largely to the same quest. Already instances have occurred in which the location of a needle and a bullet have been accurately determined for the operating surgeon with successful results. The new development is attended with much

promise and has attracted considerable interest and enthusiasm.

Sewage Interception Work.

Some difficulty has occurred in this department of the Health Committee's work which may lead to eventual trouble of a serious kind, particularly in face of the fact that zymotic diseases are exceedingly prevalent in the city and neighbourhood at the present time. A strike of some fifty-six workmen who are engaged in removal of the pans shows a disaffection which should be got over at the earliest opportunity. The work is not agreeable, and the limitation is confined to ash tubs and not to trade refuse. Upon this distinction the difference appears to have originated. It is to be hoped that in the interests of the public health it will be of short duration.

Feb. 18th.

LIVERPOOL.

(FROM OUR OWN CORRESPONDENT.)

Liverpool Royal Infirmary.

THE annual meeting of the trustees and subscribers of the Royal Infirmary was held on Jan. 30th. The treasurer, in his report, states that the total number of sufferers who have benefited by the charity has again increased. It will be seen, however, that, as compared with the previous year, the number of in-patients shows a reduction, although the average number of beds occupied has remained the same. This is accounted for by the increased proportion of serious cases now attracted to the infirmary from a very wide area. The great increase of work, however, is most shown in the out-patient department, and is chiefly surgical, augmented of late, no doubt, by the special treatment of eye, throat, and skin. Many cases which would have formerly occupied beds are now successfully treated in the out-patient department. This is of great value to the medical students, whose numbers are constantly increasing, in anticipation, possibly, of the new medical school, which may be already spoken of as practically even now under reconstruction in connexion with University College, Liverpool. The financial position of the institution has within the last few days been much brightened by a noble donation of £5000 from Mr. Henry Tate, who has always been a staunch and liberal supporter of the charity. The funds of the institution have benefited by the Hospital Sunday and Saturday collections to the amount of £2438, whilst the President, Mr. George Holt, contributes 500 guineas on his retirement from that office.

Liverpool Northern Hospital.

The annual meeting of the subscribers to this hospital was held at the town hall on the 7th inst. The committee appeal to the public of Liverpool to contribute the necessary funds to enable them to avail themselves of the munificent grant of £60,000 offered by the David Lewis trustees for the building of a new hospital, the pressing need of which has become so universally recognised. The following are some of the more prominent objects for which these further funds are required—viz.: (1) to pay off the large debit balance due to the bankers; (2) to complete the furnishing and equipment of the new hospital buildings and nurses' home; (3) to provide the cost of purchase of the additional land for the extension of the present site; and (4) to establish a maintenance fund for the future working of the hospital. For these purposes a sum of at least £40,000 will be required in addition to the grant of £10,000 made by the corporation. Several subscriptions towards these objects have been promised, comprising one of £5000 from Mr. Henry Tate, the well-known philanthropist.

The Royal Southern Hospital.

The annual meeting of the friends and supporters of this institution was held at the town hall on the 10th inst. From the committee's report it will be seen that the number of cases treated again shows an increase, the total being 10,745, of whom 2008 were in-patients and 8737 out-patients; the daily average of beds occupied was 171. The nursing institution connected with the hospital has well maintained its reputation; but, in order to meet recent requirements, it has been decided, on the advice of the medical board, that an extension of the term of training shall be given to the nurses in the hospital prior to their being admitted to the institution. The committee deplore the financial position of the charity, which shows an adverse balance on the working account of £3804 besides the debt on the nurses' home.

Liverpool Convalescent Institution.

At a meeting of the council of the Liverpool Convalescent Institution, Woolton, held on Saturday, 8th inst., it was announced by the chairman that Mr. Henry Tate had promised a donation of £1000 with which to endow two beds in the institution.

North-Western Sanitary Inspectors' Association.

At a meeting of this association, held on the 8th inst., a lecture on Milk in Relation to its Power of Conveying Disease was delivered by Mr. Edward Sergeant, medical officer of health to the Lancashire County Council. He mentioned instances where the spread of epidemics to various localities had been clearly traceable to the contamination of the milk-supply. In indicating the steps which ought to be taken to secure immunity from diseases thus conveyed he suggested that not only should shippons be constructed on approved sanitary principles with regard to light, ventilation, and breathing space, but thorough cleanliness should be observed by milkers in regularly cleansing both their hands and the cow's teats, as well as the milk vessels. He was sorry to say that not more than half the local authorities in Lancashire enforced the working of the Act as it ought to be done. The chairman, in thanking the lecturer for his address, said that he was convinced that it was a much better plan for milk-sellers to make use of the tap system of distribution in preference to the open can now employed, even though it entailed trouble in cleaning out the tap.

Additional Honorary Assistant Physician to the Royal Infirmary.

The committee of the Royal Infirmary, Liverpool, have decided, owing to the great increase of work in the out-patient department, to recommend the appointment of an additional assistant physician. The candidates for the new post are John Hill Abram, M.D. Lond., M.R.C.P., pathologist to the Royal Infirmary; Hugh R. Jones, M.A., M.D. Cantab., Howard Medalist, Royal Statistical Society; and R. J. Buchanan, M.D. Vict., assistant physician to the Liverpool Hospital for Consumption.

Feb. 10th.

WESTERN COUNTIES NOTES.

(FROM OUR OWN CORRESPONDENT.)

The Royal United Hospital, Bath.

THE Mayor presided at the annual meeting of the subscribers held on Feb. 6th at the Guildhall. The report showed that during 1895 1387 in-patients were admitted, and the out-patients numbered 9912. Financially the expenditure had been kept within the receipts, but an over-draught of £1017 remained from previous years. The donations and collections had increased, but there was a falling off in the annual subscriptions. The nursing institute had done good work and handed over £300 to the hospital. It was hoped to provide new kitchens and a new sitting-room for the nurses without calling on the ordinary funds of the institution.

Analysis of the Water in the Bristol Channel.

Visitors to Clevedon and Weston-super-Mare are frequently struck with the dirty colour of the sea-water at these watering places. A member of the district council of the former town has made an analysis of the sea water and finds that, although it has a dirty brown colour, the matter in suspension is very small—viz., 25·33 grains per gallon. The subsidence of the matter settled in from four or five hours, the water being of a greyish tint; the colour is mainly due to the presence of iron.

The Proposed New Appointment at Cardiff.

The promoters of the petition praying for the appointment of a female surgeon to the Cardiff prison have forwarded a very extensively-signed petition to the Home Secretary. The signatures include those of members of University College, the board of guardians, the school board, and the members of committees connected with all kinds of women's work, and amongst others Mrs. Fawcett has greatly interested herself in the subject. It is stated that more would have signed had they not previously promised their support to some of the candidates applying for the now

vacant post of prison surgeon. This suggested appointment is an additional one, and would, it is alleged in the petition, interfere but slightly with the duties of the ordinary prison medical officer. The ladies are still actively engaged in the matter, and are sanguine that they will be able to induce the Home Office to grant their request.

The Health of Bristol in 1895.

The medical officer of health for Bristol, Dr. D. S. Davies, reports that during 1895 the birth-rate in Bristol averaged 28·9 per 1000 living, as compared with 28·2 in 1894, and the death-rate was 18·1 per 1000, against 17·2 for the preceding year. The infant mortality, which had been 141 and 150 in the two preceding years, fell again to 143 per 1000 births for 1895. The zymotic death-rate, which had been 2·0 the previous year, declined to 1·3 per 1000 for 1895, the deaths referred to these diseases numbering 295, and including 171 from diarrhœa, 21 from "fever," 16 from scarlet fever, and 8 from measles.

Death of Mr. T. Edis, M.R.C.S., L.S.A., of Gloucester.

Mr. Thomas Edis, M.R.C.S., L.S.A., died on Feb. 8th, after a short illness, at the age of seventy-three years. He received his education at St. George's Hospital and qualified, taking the M.R.C.S. in 1847 and two years later the L.S.A. He practised at Brixton, Stokechurch, Oxford, and for the past thirty-four years at Gloucester, where his geniality and kindness made him a large circle of friends.

The Horfield (Bristol) Drainage.

The Horfield Sewage Works, a short account of which was given in THE LANCET of Dec. 7th, 1895, were formally opened on Feb. 10th in the presence of a large number of people, including representatives of the urban district council and other authorities. The scheme has been practically complete and working for two months, therefore it had received a thorough testing before the official opening. The results have been satisfactory, the odour at the works have been slight, the filtered effluent has been clear, and there has been a good demand for the compressed sludge, which is sold as garden manure. The undertaking has involved a considerable outlay, but the originators are very sanguine that it will prove thoroughly efficacious in meeting the requirements of the district, and that it will be a useful object-lesson to other district councils.

Vaccination Grant.

Mr. Edward J. Sheppard, L.R.C.P. & S. Edin., the public vaccinator for the Clifton (Bristol) district, has for the third time been awarded the extra Government grant for efficient vaccination.

Annual Meeting of the Taunton and Somerset Hospital.

The annual meeting of this institution was held on Feb. 12th, the Mayor of Taunton presiding. The receipt of a legacy bequeathed by the late Mr. Thorn of Utica, America, of £1017 enabled the committee to have a balance in hand of £100, but the urgent need of increased support was pointed out. An alteration was made in the rule to prevent the election of any undesirable person on the staff of the hospital, as might possibly have occurred under the present rule. The committee state that some opportunity of outdoor recreation had been provided for the nurses. Dr. E. Liddon, J.P., was elected president for the year.

Feb. 19th.

SCOTLAND.

(FROM OUR OWN CORRESPONDENTS.)

Health of Edinburgh.

AT the meeting of the public health committee of the Edinburgh town council last week the medical officer of health reported that the total number of deaths recorded last month was 340, a death-rate of 14·75 per 1000, as compared with 542 in January, 1895, and 433 in January, 1894, the average death-rate during January for the last five years preceding 1896 having been 21·52 per 1000. As regards the period of life at which death occurred, 112, or 32·94 per cent., of the total deaths were registered as over sixty years; 86, or 25·29 per cent., between thirty and sixty; 37, or 10·88 per cent., between five and thirty; and 105, or 30·88 per cent., under five years. Deaths from zymotic diseases amounted to 19, or 5·58 per cent. of the total mortality, while 119, or 35·00 per cent. of the whole, were due to diseases of the chest, and 56, or 16·47 per cent., to debility and old age. The birth-rate for the month was 25·82 per 1000, the total number of births having been 595. It was also reported that during the month 12,840 lbs. of unsound meat were seized or delivered up in the city.

The Morison Lectures.

Dr. A. Bruce continued his lectures on the Nerve Tracts on Feb. 14th and 18th. He completed the consideration of the tracts in the cord, and passed on to the tracts and nuclei in the medulla. The lectures were richly illustrated by sections and diagrams shown by means of lime-light.

Queensberry House, Edinburgh.

The report by the directors of the House of Refuge, Queensberry House, Edinburgh, for last year states that 385 persons were admitted to the institution during that period, and the daily average of inmates was 276. In the report by Dr. William Russell, the visiting physician, it is stated that on the termination of the frost in March of last year there was a smart outbreak of influenza both in the house and hospital, more of the inmates having been affected than in the preceding years when influenza was prevalent. The cases were, as a rule, mild, but four were fatal from pneumonia. These occurred in persons from eighty to eighty-seven years of age. The total number of deaths during the year was 28, one-third of the deaths being in persons over eighty years of age and 70·3 per cent. in persons over seventy years. Of the causes of death, as tabulated, none are ascribed to senility pure and simple. It is suggested that arrangements should be made to provide more suitable accommodation for the treatment of cases of acute disease occurring amongst the inmates.

Edinburgh and Leith.

The authorities in Leith have at last decided to withdraw their opposition to the erection of the temporary hospital at Quarryholes required by Edinburgh.

Dr. J. B. Russell on the Prevention of Tuberculosis.

The Medico-Chirurgical Society of Glasgow some time ago submitted a series of resolutions to the health committee of the town council calling their attention to the fact that "tuberculosis is now fully recognised as an infectious disease," and asking the committee "to take the matter into their serious consideration with a view to the protection of the community from the infection." The memorial was remitted to Dr. J. B. Russell, the medical officer of health, who has just issued a report dealing with the whole subject of the relation of the public authorities to tuberculosis. Dr. Russell introduces his report by a short statement of the nature of tuberculosis, and by an account of the life history of the bacillus and of the conditions which determine the spread of the disease. He recognises that the chief source of infection is the sputum of phthisical patients which, allowed to dry, distributes the bacillus in the atmosphere. The milk and flesh of tuberculous animals must, however, be regarded as such distinct sources of infection that there is ample ground for public interference to prevent the spread of the disease through their use. To deal with the two last-mentioned sources of infection Dr. Russell contends that the selection for purposes of human food of portions of carcases in any part of which tubercle has been found must be done, "if at all," by properly qualified officials. He urges the necessity of taking immediate action to eliminate tuberculous cows from dairies in the city and neighbourhood and to enforce sanitary reform in the construction and condition of the byres. For these purposes he advises the appointment of a skilled veterinary expert and the use of tuberculin as a diagnostic agent. With regard to the position of tuberculosis as an infectious disease, Dr. Russell insists that even in the form of phthisis the disease, "though in all cases caused by infection," is not infectious in the *popular* sense, and that the indiscriminating application of the term "infectious" to the disease is already causing much pain and prejudice to individuals, and is injurious to the public interest. It is not the phthisical patient, but his bad habits—resulting from ignorance—which are a source of danger. Let the sputa be properly dealt with and the patient is no longer a danger to the community. Regarding phthisis, therefore, as infectious only in the *academic* sense, the report proceeds to consider how far the various administrative sanitary measures are applicable to tuberculous patients. The doctrine of the "extremists" recommending compulsory notification and isolation is declined as unsuitable to such a chronic disease as phthisis, as still less applicable to other

forms of tuberculous disease, though the removal of advanced cases where the special precautions necessary for the disinfection of the sputa, &c., are wanting, and the surrounding conditions are hygienically bad, is recognised as a useful preventive measure. Even this, however, would be a novel task for the public authorities, being in fact the provision of "shelters for incurables," and essentially different from the isolation for curative purposes of patients suffering from the specific fevers. Any provision which exists for the treatment of phthisis most certainly ought, in Dr. Russell's judgment, "to be patronised by the authorities." The report emphatically declines to recommend any measures which would surround phthisical patients with restrictions and brand them as a danger to the community. These are stigmatised as cruel and inexpedient because unnecessary. But a distinct field for municipal activity in the prevention of the spread of tuberculosis remains apart from proceedings painful to the individual and unnecessary for the protection of the community. Public opinion may be educated by a knowledge of the fact that it is from infected sputa allowed to dry that danger arises. Disinfection effectively carried out should be insisted on after every death from phthisis, and also at the discretion of the medical officers in the course of this or other forms of tuberculous disease. The milk and meat supplies of the city should be under energetic and capable control, and the authorities, by the application of their powers with regard to the construction of dwelling-houses, the ventilation of factories, the enforcement of all sanitary police measures, the development of public parks and the provision of playgrounds in the crowded part of the city, should secure, as far as is possible, the conditions necessary to obtain strong and resistant constitutions for the youth of the city the welfare of which it is their duty to promote. The report is provided with numerous tables and documents showing the aspects in which the subject has been regarded by various sanitary authorities in this and other countries, and will undoubtedly occupy a leading position in the discussion of the important subject with which it deals.

The New Photography in Aberdeen.

The Roentgen rays have been used for surgical purposes in Aberdeen. Mr. J. M'Kenzie Davidson has succeeded by this new method in locating the exact position of a needle in a patient's foot, thereby greatly assisting the operation for its extraction. Mr. Davidson is to deliver a lecture in the Mitchell Hall, University Buildings, on Light and Colour, illustrated by "shadowgrams." The proceeds will go to the benefit of the Aberdeen Ophthalmic Institution, which was lately removed to premises in King-street, fitted with eight beds for in-patients. From the proximity of the new premises to numerous granite works the number of cases at the Ophthalmic Institution has considerably increased.

Feb. 18th.

IRELAND.

(FROM OUR OWN CORRESPONDENTS.)

Royal College of Surgeons in Ireland.

AN examination for the Fellowship of the Royal College of Surgeons in Ireland commenced on Monday, the 17th inst., when nine candidates presented themselves—five in the primary and four in the higher grade. Two of the gentlemen who are being examined in the primary grade are students who have recently passed the second professional examination of the College, this being the first occasion on which the new regulation, by which student candidates are permitted to present themselves for the primary test, has been utilised.

Local Government Board Inquiry at Cookstown.

Certain complaints having been made respecting the management of the Cookstown Workhouse Fever Hospital during the outbreak of typhus fever which took place in the months of September, October, and November, 1895, an inquiry was recently held by Mr. Agnew, inspector of the Local Government Board; and on Feb. 8th, at a meeting of the Cookstown board of guardians, a letter was read in reference to the matter from the secretary of the Local Government Board. This board are of opinion, guided by the evidence given at the inquiry, that the fever hospital nurse should be cautioned to pay greater attention to the condition of the bed-clothing and bedding in the hospital. It seems tea was prepared for the patients in the hospital usually at about 7 A.M. and not served until 8.30. The Local Government Board point out that tea made in this manner is neither wholesome nor palatable. They also think that duties such as was alleged (washing of blankets) should not be imposed on convalescent patients. They also say that the fever hospital nurse should have given more attention to the lighting of the wards at night. With regard to the most serious allegations made at the inquiry—that the remains of a deceased patient were allowed to remain in the hall or in the surgery from a Wednesday to a Friday and that the remains of a male patient were left in the ward occupied by five patients for two nights and one day—the Local Government Board consider that the responsible officers were guilty in these cases of serious neglect of duty and disregard of sanitary rules. They say it was the duty of the master, when the death of the patient was reported, to have seen that the remains were at once removed to the deadhouse pending the necessary arrangements being made for the interment. But before coming to a definite conclusion as to the course which the Local Government Board should take in the matter they are willing to consider any explanation which the master may desire to offer on the subject. They also request that the medical officer may be called upon to explain why he permitted such a state of things to occur in the hospital under his charge. The Local Government Board trust that the Cookstown guardians will consider the important subject of the want of adequate sanitary accommodation in the hospital as given in evidence by their medical officer. This important report the guardians directed to be communicated to the fever hospital nurse, the master, and the medical officer. The two latter are to report in writing in two weeks.—At the weekly board of guardians at Cookstown on Feb. 15th it was reported that the letter from the Local Government Board in reference to the management of the fever hospital had been read to the medical officer, the master, and the nurse. Explanations having been received from these it was unanimously agreed by the guardians to forward the following resolution to the Local Government Board: "That having heard and considered the statement and explanations of the medical officer and master of the workhouse, with reference to permitting the remains of Rose Donnally to be kept in the surgery of the hospital, and the remains of John Wyle to be left in the ward of the hospital, we accept them, and consider that under the circumstances mentioned no serious blame attaches to either the medical officer or the master; and we desire to add that they, in our opinion, have always been most efficient, careful, and attentive in the discharge of their respective duties, and in the emergency resulting from the outbreak of fever were most diligent in their efforts to do the best they could in the unusual and trying circumstances."

Omagh District Asylum.

At the monthly meeting of the board of this asylum held on Feb. 13th Dr. Carre (medical superintendent) in his report alluded to the insanitary state of the asylum. Since the last meeting there had been five deaths—three from phthisis, one from typhoid fever, and one from exhaustion after a severe attack of erysipelas. No contract has been entered into for heating the asylum or for plumber's work. The board passed a resolution bringing under the notice of the board of control the danger at present existing in the crowded state of the house from the delay in the progress of the new works, and also the fact that the heating and plumbing contract has not yet been entered into.

Important Discussion with regard to the Care of Lunatics in District Asylums and in Workhouses.

The medical inspectors and the architect of the Board of Control met the house committee of the Cork Lunatic Asylum for the purpose of discussing with them the best means of providing increased accommodation in the asylum. Whilst the late Government were in office the authorities at Dublin Castle wrote to say that the district asylum was the proper place for lunatics detained in workhouses, and that the governors were legally bound to provide sufficient accommodation for them. The governors, feeling there was no help for it, discussed various plans, and came to the conclusion that they would be obliged to expend some hundreds of thousands of pounds. But now a contrary opinion has been received from the officials of the present Government, and the governors of the asylum are informed that it is not imperative on them to provide for the maintenance of harmless lunatics already domiciled in the workhouses of the

county. However, as there has been overcrowding in the asylum for some time past, the inspectors and the governors considered it desirable that some steps should be taken for the purpose of obviating that state of affairs. The inspectors and architect made a proposal which was very favourably received by the house committee and afterwards by the full board of governors. The suggestion was that a hospital should be built on grounds adjoining the asylum at a cost of about £35,000, and that all curable cases should be removed to that hospital, which would be an establishment complete in itself with an assistant physician resident on the premises. Apart from the humanity of such a course, it was pointed out that a saving in establishment charges is likely to occur eventually owing to many of the poor patients being enabled to return home at an earlier date than could be expected under the present system, which permits of the intercommunication of curable and perfectly hopeless cases. One of the inspectors stated that it is probable the Government will bring in a Bill for the purpose of enabling the Board of Control to build suitable accommodation in connexion with workhouses for the treatment of incurable lunatics. There is also an idea that a capitation grant will be made by Government for their maintenance.

Feb. 18th.

PARIS.

(FROM OUR OWN CORRESPONDENT.)

Medical Men and Life Assurance Companies.

A FEW years ago Dr. Gibert of Havre put the following question to the Société de Médecine Légale: Should the medical attendant supply a life assurance office with a certificate giving detailed information concerning the last (fatal) illness of a patient who was insured in such an office? Actuated doubtless by the obligation imposed by the *secret professionel* the society replied in the negative. That body has just (Feb. 10th) confirmed this ordinance, and further recommends the practitioner to refuse such certificate to the family, who frequently require the document for insurance liquidation purposes. I do not know how such reserve on the part of a medical man would be welcomed in our own country, but professional secrets are jealously guarded in France, and, what is more, a refusal to divulge them would be almost certainly approved of by the tribunals.

Treatment of Obstinate Hiccough by Tongue Traction.

Most practitioners must have been puzzled to know how to remedy that distressing condition — obstinate hiccough. Emetics, apomorphia, nitro-glycerine, morphia, pressure over the phrenic nerve, &c. have frequently been tried successively and found to be inefficacious. Professor Lépine of Lyons had recently under his care a young girl who had for four days been afflicted with hiccough, the respiration being 30 per second. The girl was not hysterical, but complained of certain symptoms of dyspepsia. Asked to show her tongue, she held "the unruly member" outside the dental arches for some time. Struck by the cessation of the hiccough while the tongue was in this extended position M. Lépine maintained the traction for several minutes, with the result that the symptom disappeared definitely. This is not the first successful application of the method for the cure of hiccough, M. Viaud having reported two cases in 1894.

The Heart in Hump-backed Persons.

M. Huchard[1] tells us that the lungs in persons affected with the above-mentioned deformity undergo a process of atrophy which is more or less considerable according to the degree of the spinal curvature and the consequent alteration of the thorax. This atrophy affects the heart just as emphysema does, the right ventricle becoming dilated. This in its turn brings about a particular kind of dyspnœa, or rather polypnœa, with almost exclusively diaphragmatic breathing. Venous stasis is the consequence, and in these deformed persons asphyxial symptoms always precede dyssystole, whereas in true "cardiacs" the contrary is the case. In those individuals then affected with gibbosity we must recommend the avoidance of all constriction of the chest, and more especially treat promptly and actively an attack of bronchitis, which is always a serious matter under the condition above mentioned. Should signs of asphyxia appear in the course of such an attack M. Huchard urges the importance and necessity of phlebotomy.

[1] Journal de Médecine et de Chirurgie Pratiques, Feb. 10th, 1896.

The Fecundity of the Frenchwoman.

In a suggestive article in the *Revue Scientifique* of Feb. 8th M. Turquan states that between the ages of fifteen and nineteen years the fecundity of his countrywomen is scarcely if at all inferior to that of other European women at the same period of life. After the age of twenty years, however, this fecundity falls to two-thirds of that of other European women, and this proportion falls to one-half beyond the age of thirty-five. Speaking generally, French natality is to natality in the other European races as two is to three. Were French mortality as proportionally small equilibrium would be established. Unfortunately, many European countries enjoying a birth-rate almost double that of France have the additional advantage of a death-rate which is one-third less than that of this country.

The Seventh Congress (annual) of the Alienists and Neurologists of France and of French-speaking countries will be inaugurated at Nancy on Aug. 1st, under the presidency of M. Pitres, Dean of the Faculty of Bordeaux. The questions *à l'ordre du jour* are: (1) pathogenesis and physiology of hallucinations of hearing; (2) semeiology of tremblings; and (3) the internment of lunatics in special asylums in its therapeutical and legislative aspects.

The death is announced of Dr. T. Laennec, formerly Director of the Nantes School of Medicine and nephew of the great Laennec. Dr. T. Laennec graduated M.D. in 1856.

Feb. 18th.

BERLIN.

(FROM OUR OWN CORRESPONDENT.)

An Outbreak of Small-pox in a Berlin Hospital.

CASES of small-pox are very rare in Berlin, and there has been no real epidemic since the introduction of compulsory vaccination, but instances occur from time to time in foreigners passing through this town from the countries lying to the eastward, especially from Russia. In this way it has come to pass that the majority of the Berlin medical men have never had an opportunity of studying small-pox, and the profession and the public were therefore rather startled by the news that it had broken out in the Friedrichshain Hospital. Fortunately, however, the epidemic has been confined within narrow limits. I learn from a report of Professor Fürbringer, chief physician to the above hospital, that on Oct. 19th, 1895, a girl of three years of age was brought there as suffering from measles. The physician on duty thought the case to be varicella, but as the patient's temperature became very high and her general state worse and worse, she was carefully isolated and treated as suffering from small-pox. Death occurred on the fifth day. As no case of this kind had happened either in the house where the child lived or in the neighbourhood, the diagnosis was for some time doubtful, but on Oct. 29th a girl aged three months, sister of the original patient, was admitted, and on the following day five persons in the hospital pavilion where the first case had been, suddenly became ill—a nurse, a housemaid, and three convalescents. The diagnosis being now quite certain all the patients were brought from the Friedrichshain Hospital to Professor Koch's hospital for infectious diseases. Two days later a child suffering from whooping cough, who had been in the upstairs ward of the hospital pavilion, became ill, although she had not been in any direct contact with the first mentioned child. This was the last of the hospital patients to be taken with the disease, but on subsequent days five other persons who had been engaged about the first child were attacked—a servant who had carried the child's linen to the laundry, a tradesman of the hospital who, prompted by curiosity, had watched the removal of the patient from the Friedrichshain Hospital to the small-pox hospital, and three students who were present at the post-mortem examination of the child. Immediately after the outbreak of this epidemic energetic measures were taken to prevent a further spread of the disease. The pavilion where the cases arose was shut up and all its occupants belonging to the staff were forbidden to leave the premises. Unfortunately the law did not sanction the detention of those patients who wished to be discharged, but they were earnestly requested to give immediate information in the event of their feeling unwell.

The whole pavilion was thoroughly disinfected and all the inmates of the hospital, the staff, nurses, servants, and the patients in all the pavilions were vaccinated, although no case had occurred in any but the one pavilion. Dr. Vagedes, assistant physician of the small-pox wards of Professor Koch's hospital, states, in a further report on this remarkable series of cases, that only three patients came directly from the city—a boy who lived in the neighbourhood of the girl first attacked and had slept on the sofa where she had lain, a medical student who had visited Professor Koch's small-pox wards in order to see the cases, and another medical student who had not in any way come in contact either with the patients or their attendants. This last was the only instance in which the source of the infection could not be traced. Three of the patients died, all being children who were unvaccinated, either by inadvertence or because they had not yet reached the required age. In all the other cases the symptoms were of the mildest and the patients might have been discharged in a few days. Still more remarkable is the fact that in the families where these cases had happened the vaccinated children were unaffected, whilst all the others caught the disease. By very painstaking inquiries Professor Koch succeeded in discovering that the primary source of the epidemic was a foreigner who had come a few days before from Russia and had lived in the house of the family first attacked. This man had suffered from an exanthem and had gone to a dispensary, where the case was registered as urticaria varioliformis, but he had left the town before the development of the epidemic, and could not be subsequently examined by the physicians. This small epidemic once more proves in a remarkable way the inestimable value of compulsory vaccination, although it is still contested by a considerable portion even of the educated classes. Perhaps the anti-vaccinationists will now become less confident in view of the fact that it was possible to confine this dreadful disease within a small area, in spite of the fact that it made its appearance first in a very poor and dirty quarter of the city and then in an overcrowded hospital.

VIENNA.

(FROM OUR OWN CORRESPONDENT.)

Antistreptococcic Serum in Scarlet Fever.

DR. MARMOREK, writing in the *Medicinische Wochenschrift*, has given an account of the treatment of scarlet fever with antistreptococcic serum. Although the micro-organism of scarlet fever has not yet been discovered the relation of streptococci to scarlet fever is of great importance, for their presence in the numerous sequelæ of this disease, such as abscesses, nephritis, and endocarditis, shows the danger of such a combined infection. From Oct. 16th up to the end of December, 1895, Dr. Marmorek had under his care 103 children affected with scarlet fever, and 96 of them were treated by injections of serum, the total quantity of which amounted to 30,000 units. In 7 cases which were admitted in a state of total exhaustion no injection was performed. Of 17 cases in which Löffler's bacilli also were found, 4 died in spite of the injection of both diphtheria antitoxin and antistreptococcic serum. In slight cases 30 c.c. of serum were injected, in urgent cases 40, c.c., 60 c.c. and 70 c.c.; 90 c.c. were injected in a case complicated with broncho pneumonia. The most remarkable effect was the decrease of the swelling of the lymphatic glands. Albuminuria was sometimes observed two days after the injection. The pulse became slow and strong and the exudation in the pharynx was cast off.

Tabes and Syphilis.

Tabes has been supposed to be a sequela of syphilis ever since syphilis was found by Gower in 70 per cent., by Erb in 85 per cent., by Fournier in 93 per cent., and by Moebius even in 100 per cent. of tabetic patients, but Dr. Gluck in a highly interesting pamphlet has now endeavoured to refute that theory. He relies greatly on the facts that syphilitic reinfection can only occur after the first infection has entirely disappeared, and that no one has hitherto observed syphilomata belonging to the first infection co-existent with recent forms of syphilis or moist papules. Diday considered that the curability of syphilis might be inferred from this circumstance of reinfection. Secondary and tertiary symptoms when occurring together belong to the same infection. Were tabes caused by syphilis a second infection in a tabetic patient would be impossible, his immunity having not yet ceased, and the occurrence of recent syphilis in tabes is an additional proof that the latter is not of syphilitic origin. Such a lesion as grey degeneration of the posterior columns of the spinal cord has not yet been observed in syphilis and is doubtless a primary degeneration of the nerve fibres. Moreover, antisyphilitic treatment even in the case of recent tabes is of no avail. There is no constant relation between these diseases, for tabes is rare among negroes and certain peoples of Asia in spite of the fact that syphilis rages among them. Dr. Gluck has had fifteen years' experience in Bosnia, where all the inhabitants of some districts suffer from syphilis, syphilomata of the skin and syphilitic diseases of the bones and nervous system being quite common, but no case of tabes came under his observation, neither has any case of tabes been registered among 3000 patients admitted to the Serajevo Hospital, from July 1st, 1894, to October, 1895. In his opinion syphilis may sometimes give rise to ataxy but never to tabes.

Early Nervous Manifestations in Syphilis.

At a meeting of the Vienna Medical Club Dr. Kahane described a case of malignant syphilis in which nervous disorders were observed in the second stage. The patient, who was a drunkard and had acquired syphilis some seven months previously, was suffering from paresis of the left arm and leg and of the face, due either to gummatous meningitis or to changes in the vessels. As gummatous meningitis would give rise to general symptoms and disease of the cortex of the brain would cause Jacksonian epilepsy he supposed the patient's condition to be dependent on syphilitic endarteritis of the artery in the Sylvian fissure.

Pulmonary Actinomycosis.

At the last meeting of the Medical Society Dr. Halban exhibited a case of Primary Actinomycosis of the Lungs. He remarked that sixty cases of this disease had been published since Israël described it in 1885, and that it might be consequent upon an affection of the upper or lower jaw originating in carious teeth, but cases not uncommonly occurred in which no caries of the teeth was to be observed. According to some writers the infection was conveyed by inhalation into the lungs. There were three stages in the disease; the fungus first caused bronchitis without any remarkable symptoms beyond a slight infiltration in the right upper lobe and cavities. In the further course of the disease the lung was transformed into a hard, dense mass, nodulated on the surface and shrivelled. In the third stage the diseased growth reached the soft parts and the skin and presented the appearance of a hard, irregularly shaped tumour, with numerous fistulæ discharging a purulent fluid. During this period cutaneous emphysema might sometimes be observed. The expectoration was scanty and slimy, and grains of the fungus, but no tubercle bacilli, were to be found in it. Microscopical examination showed clusters of actinomycetes, red blood corpuscles, and elastic fibres. As regards treatment, residence in a mountainous district might be beneficial in some cases; the late Professor Billroth obtained gratifying results by injection of tuberculin, but Rydigier recommended the injection of a 0·1 per cent. solution of iodide of potassium into the infiltrated tissue.

A New Test for Albumin in the Urine.

Reagents for the detection of albumin in the urine must be colourless and must reveal the presence of albumin even when the amount is too small for quantitative estimation. Dr. Jolles has published a new and delicate test, consisting of 10 grammes of chloride of mercury, 20 grammes of succinic acid, 10 grammes of common salt, and 500 grammes of distilled water. In the process of testing 4 c.c. of the filtered urine are mixed with 1 c.c. of acetic acid, and 4 c.c. of the above reagent are added with shaking. In a second glass similar quantities of urine and acetic acid are mixed with pure water instead of with the reagent. This test yields a cloudiness of albumin in cases where the ordinary tests fail to give any result at all.

Mummification of the Forearm after Extirpation of Uterine Carcinoma.

Professor Braun, at a recent meeting of the Vienna Medical Society, described a case of Mummification of the Right Hand and Forearm following the Extirpation of a Carcinomatous Uterus which was removed per vaginam four months ago. Two days after the operation the patient showed

paresis of the right upper extremity and livid colouration of the forearm, the skin being dry and exfoliating. On the third day there was complete mummification, no pulse was to be felt in either the ulnar or the axillary arteries and amputation was performed in January. Professor Weichselbaum, who made the pathological examination and exhibited the preparation, said that there was no change in the arteries of the forearm, except the presence of some coagula. In his opinion the case is remarkable on account of the mummification occurring in the forearm and also on account of the brain being affected, for the patient is at the present time suffering from right facial paralysis. The explanation may be a neuropathic necrosis due to destruction of the trophic centres; but this process being very rare the mummification may be due to the want of blood-supply. The blood pressure was but trifling, and, of course, vascular engorgement in the capillaries and veins took place with transudation into the soft parts and subsequent drying up. The cerebral lesion is embolic softening due to a thrombus in either the aorta or the heart from which particles are detached, giving rise to embolism of the axillary artery and also of the arteries supplying the fissure of Sylvius.

Feb. 16th.

RUSSIA.

(FROM OUR OWN CORRESPONDENT.)

The Twelfth International Medical Congress.

THE arrangements for the next International Congress, which will be held in Moscow in August, 1897, are now being worked out by the special committee appointed for the purpose. There will be twelve sections, as follows: (1) anatomy, (2) physiology, (3) general pathology and pathological anatomy, (4) general therapeutics, (5) internal diseases, (6) children's diseases, (7) nervous and mental diseases, (8) dermatology, (9) surgery and diseases of the eye, (10) midwifery and gynæcology, (11) hygiene, and (12) legal medicine. The Government has assigned 35,000 roubles for the expenses of the congress. The official language of the congress will be the French language, but in the general meetings, of which there will be three, communications may be made in any European tongue. In the sectional meetings only three languages will be admitted—namely, French, German, and Russian. It will be seen that in this respect the organising committee have altered their original intentions, which were to make French and German the official languages and to exclude all others completely. The propriety of admitting Russian communications to a congress held in the Russian capital cannot be questioned. Englishmen, however, must still regret that they will be debarred from making communications in their own tongue to the sectional meetings and that their only opportunity of reading papers in the English language will be in the three general meetings.

The Jenner Centenary in Russia.

The Russian National Health Society is making strenuous efforts for the success of the Jenner centenary celebration to be held in May. Much, however, of their success must of necessity depend upon the response made by English medical men to the overtures of the society. Although the method in which the society proposes to commemorate Jenner's great discovery has already been detailed in THE LANCET, I may be permitted to again call attention to it. There are offered four prizes, the first equivalent to 100 guineas, and a gold medal, for the best work upon vaccination. English is one of the languages in which the work may be written, and the work must be sent in before March 12th (New Style). An exhibition of relics of Jenner, and of books, pamphlets, prints, tabular returns, instruments, and other objects relating to vaccination or to Jenner will be held. It is to be sincerely hoped that any one possessing such objects will freely lend them to the exhibition. It would be a graceful act on the part of authors of books, pamphlets, or reports upon vaccination to present a copy to the permanent library of the Russian National Health Society to commemorate the occasion. The society is also publishing a history of the development of vaccination in Russia and other countries, and a full biography of Jenner, together with a portrait and copies of his drawings. The price of this "centenary edition" will be three roubles (about 6s.). The promises of subscription have so far come in well. Before the end of last year names of over 1600 subscribers had been received, and probably many more have since come in. The edition will be edited by Dr. Ladislas Hubert, the secretary of the society and an acknowledged authority upon vaccination. It is to his initiative that the scheme of the centenary celebration is due. Invitations have been sent to various learned societies and medical institutions in England to appoint delegates to attend the celebration, and some leading English physicians, whose names will probably be announced shortly, have consented to become its "patrons." All objects intended for the exhibition, as well as any other communication relating to the centenary, should be addressed either to Dr. Hubert, 15, Dmitrofski-pereoulok, St. Petersburg, or to Dr. F. Clemow, 69, Earl's Court-square, London, S.W., who is acting for the society in England.

The Odessa Medical Faculty.

The buildings of the new faculty of medicine in the Novorossiisk University in Odessa will be on a generous scale. The cost of the anatomical theatre and laboratories alone will be 319,150 roubles; the clinique will cost 386,880 roubles; paving of courtyards, planting of trees, and similar expenses are put down at 43,970 roubles; two new buildings in the University for chemical and physical laboratories will cost 20,000 roubles; so that the whole cost of the buildings will be as high as 950,000 roubles (about £100,000). The furnishing them will probably cost 250,000 roubles. In the clinique will be beds for 175 patients, and not for 255 as at first proposed.

Diminution of Cholera.

Cholera has quite disappeared from the government of Kief and is almost extinct in St. Petersburg. Between Jan. 19th and 26th (Old Style) there were eight fresh cases of the disease in the capital and five deaths. On the 26th only four cases of cholera remained under treatment.

Feb. 15th, 1896.

CONSTANTINOPLE.

(FROM OUR OWN CORRESPONDENT.)

Quarantine Measures.

THE General Board of Health publishes the following notice in the daily papers:—The existence of cholera in Egypt rendering it necessary to adopt prophylactic measures with regard to pilgrims proceeding to Hedjaz by way of the Suez Canal, the General Board of Health has decided that pilgrim ships coming from the Turkish littoral will proceed to the lazarettos of Clazomena, Beyrout, or Tripolis in Barbary, where they will be subjected to disinfection; here, too, their bilge-water will be pumped out and their provision of drinking water renewed, while the linen of the pilgrims will be disinfected. These vessels, as well as those coming with pilgrims from Morocco and Algeria, will cross the Suez Canal without communicating with the land, and will be under the supervision of pilots taken at Port Said who have previously undergone a quarantine of five days. The vessels will proceed direct to Djeddah. At this port pilgrims will be subject to medical inspection. Should a case of cholera occur during the passage the vessel will, immediately after its arrival at Djeddah, be isolated and sent to Camaran, where it will undergo the regular term of quarantine.

The late Dr. Soutsos.

The death is announced from Athens of Dr. Pericles J. Soutsos, Physician-in-chief of the Greek Army. Deceased was born at Odessa on Aug. 30th, 1829, and was a member of the well-known Phanariot family. His father, John Soutsos, was a Grand Dragoman of the Sublime Porte. He studied medicine in the university of Athens, and afterwards went to France to complete his professional studies. He returned to Greece in 1856 and joined the army, in which he served until the time of his death.

Feb. 5th.

AUSTRALIA.

(FROM OUR OWN CORRESPONDENT.)

A Presidential Address.

DR. W. SNOWBALL, the retiring President of the Victorian Branch of the British Medical Association, delivered a short address at the annual meeting in December. He considered that the union of physician and surgeon was becoming day

by day more evident and that scientific surgical interference was fast supplanting the more empiric treatment by drugs, though no conscientious surgeon would speak of a surgical operation as devoid of danger. Exactness of diagnosis was all-important, and in this direction too much attention perhaps was given to laboratory work to the neglect of bedside observation. Speaking of the diphtheria antitoxin he remarked that there was a tendency to forget that it simply antagonised the diphtheritic virus, and that when the virus had produced actual structural change it was futile to expect benefit from its use. He strongly advocated the establishment by the Government of an Institute of Public Health where toxines and vaccines could be prepared and bacteriological investigations made. In diseases of children he referred to the advances made in the treatment of intestinal trouble, the keynote of which was asepsis of the intestinal tract, purity of the food-supply, cleanliness of environment, food, and bowel, the latter attained by lavage. He was strongly of opinion that amelioration of the medical diseases of childhood was to be effected rather in the household kitchen than in the laboratory of the pharmacist. In the surgical diseases of the young the results of wise and cautious operative interference were most satisfactory, as seen in erasions of joints and the treatment of intussusception and tuberculous peritonitis by laparotomy. For stone in the bladder he still preferred the lateral operation notwithstanding that the supra-pubic method was fashionable just now.

Proposed Maternity Hospital for Sydney.

Sydney is strangely lacking in proper accommodation for indigent maternity patients. The Benevolent Asylum has a lying-in department attached to it, but the buildings are now quite unsuitable and have been repeatedly condemned. Not very long ago reference was made to an outbreak of puerperal septicæmia that occurred there, leading to the resignation of the staff, who attributed the outbreak to the insanitary state of the buildings. The lying-in department of the asylum, however, is not the only provision for maternity patients in Sydney. Some time ago a Women's Dispensary was started in Hay-street by some members of the medical profession, with whom are associated some ladies on the board of directors. The directors have been making energetic efforts to collect funds to enlarge the building, and recently a deputation waited on the Colonial Secretary to ask the Government for a piece of land on which to erect a new maternity hospital; also to request a donation of pound for pound for any money subscribed for the building of the same. Some of the directors of the Benevolent Asylum also attended to urge the prior claims of that institution to Government assistance. All the Asylum authorities require is that the Government should take over the present site and grant them another more suitable for the purpose. The society has a building fund of £20,000, a sufficient portion of which it is prepared to devote to the building of a new maternity hospital if the Government will grant the required land.

Medical Journalism in Australia.

An amalgamation has just been effected between the *Australian Medical Journal* and the *Intercolonial Quarterly Journal of Medicine and Surgery*. The former publication was founded by the Medical Society of Victoria in the year 1856, and was for long the only medical journal in Australia. Then the *Australasian Medical Gazette* was started in 1881 in Sydney as the organ of the Victorian, New South Wales, and South Australian branches of the British Medical Association. Soon afterwards the Victorian branch made arrangements to publish its transactions in the *Australian Medical Journal*, and so it came about that the *Gazette* was the Sydney and the *Journal* the Melbourne medical publication. Then the branch of the British Medical Association in Brisbane arranged to publish its transactions in the *Gazette*, which became gradually more and more Australasian in character, while the *Journal* became more and more local and Victorian. Both were medical newspapers giving leading articles and local news not entirely medical though of professional interest. Nearly two years ago the *Intercolonial Quarterly* was started as a private enterprise in Melbourne by some members of the profession, who thought there was room for an independent journal of a more purely scientific character and free from localism in every sense. Last year the *Gazette* was purchased by the New South Wales Branch of the British Medical Association, and is now supplied, as well as the *British Medical Journal*, to all members of the branches of the British Medical Association in Australia, of which it is now the recognised organ. The new journal formed by the amalgamation of the *Quarterly* and the *Australian Medical Journal* is to be published monthly and called the *Intercolonial Medical Journal of Australia*. The editorial staff will be a large one, all the colonies being represented, and it is intended to make the new publication an independent journal of a thoroughly intercolonial character.

The Medical Congress in New Zealand.

The arrangements for the meeting of the Intercolonial Medical Congress of Australasia to be opened in Dunedin on Feb. 3rd are practically complete, and the meeting promises to be a great success. A considerable number will attend from the Australian continent, tempted to a large extent by the favourable opportunity afforded of seeing the magnificent scenery of New Zealand. Some alterations have been made in the positions of presidents of sections. Dr. Jamieson of Melbourne being unable to attend has resigned the Presidency in Medicine, and the position has been accepted by Dr. A. A. Lendon of Adelaide. Dr. MacCormick of Sydney has resigned and Mr. H. M. O'Hara of Melbourne has accepted the position of President of the Section of Surgery.

Report of City Coroner for Sydney for the Year 1895.

During the year 1895 the number of deaths reported to the City Coroner of Sydney was 541, 237 of which formed the subject of inquests. In almost every case the Government pathologist, Dr. G. E. Rennie, has made a report, and also a post-mortem examination in the majority of cases. The year has been one of suicides, especially towards its termination. In five days of December seven people committed suicide. The suicides run in cycles, one is followed by several in quick succession and then there is a lull. Shooting with a revolver is the most frequent method employed, then drowning, then poison, arsenic being the favourite. Infanticide has been less prevalent.

Case of Xerostomia.

At the last meeting of the South Australian Branch of the British Medical Association Dr. T. K. Hamilton exhibited a patient suffering from xerostomia, or persistent dry mouth. She was forty-six years of age and enjoyed good health up to March, 1895, since when she has suffered from dryness of the nose, throat, and mouth. The tongue was dry, glazed, red, and hyperæsthetic. The salivary glands did not respond to either mechanical, chemical, or mental stimuli, and only slightly and temporarily to electrical stimulation. Mastication was difficult, and the whole buccal cavity shared in the dryness; both taste and smell were defective. No treatment has had any effect, pilocarpin and electricity both failing to relieve the patient.

Jan. 2nd.

Obituary.

SURGEON-GENERAL J. EKIN, C.B., M.B. LOND.,

ARMY MEDICAL STAFF.

WE regret to announce the death, on the 14th inst., of Surgeon-General J. Ekin, C.B., at the age of sixty-seven. The deceased officer retired from the Army Medical Service a few years ago, and his loss will be greatly regretted, for he was most deservedly respected as an able officer and excellent administrator as well as an upright, honest man of excellent judgment. Surgeon-General Ekin had seen a good deal of field service. He served with the 4th Regiment at the siege and fall of Sebastopol, and received the medal with clasp and Turkish medal. He also served in the Afghan war of 1879–80, and accompanied Sir Frederick, now Lord, Roberts in his march to Candahar as principal medical officer of the infantry division, and was present at the battle of Candahar (mentioned in despatches, medal and clasp). He afterwards served in the Egyptian campaign of 1882, where he acted as principal medical officer of the First Division, and was present at the battle of Tel-el-Kebir (mentioned in despatches, medal and clasp, Khedive's star, and C.B.). He used to declare that he regarded his work as a medical officer in the brief Egyptian campaign as about the most fatiguing and arduous he had undertaken, and considered that the medical staff rendered excellent service on that occasion. He was

for a time the principal medical officer at Netley, where he was very popular and much respected as a clear headed judicious administrator. He was a man of strong physique and good common sense, cultured, and of genial, kindly disposition. Surgeon-General Ekin studied at University College Hospital.

Medical News.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following gentlemen, having passed the necessary examinations, and having conformed to the by-laws and regulations, have been admitted Members of the College, and are now entitled to practise medicine, surgery, and midwifery:—

Alexander, Herbert, L.R.C.P. Lond., Guy's Hospital.
Allport, Wilfred, L.R.C.P. Lond., Mason College, Queen's and General Hospitals, Birmingham.
Aspland, William Harold Graham, L.R.C.P. Lond., London Hospital.
Atkinson, Frederick Holgate, L.R.C.P. Lond., Charing-cross Hospital.
Auden, George Augustus, L.R.C.P. Lond., Cambridge University and St. Bartholomew's Hospital.
Bailey, Henry, L.R.C.P. Lond., Yorkshire College and General Infirmary, Leeds.
Banting, Cecil, L.R.C.P. Lond., University College Hospital.
Bell, Hugh Thomas Symes, L.R.C.P. Lond., Guy's Hospital.
Bennett, Robert Allen, L.R.C.P. Lond., Mason College, Queen's and General Hospitals, Birmingham.
Bensted, Lewin, L.R.C.P. Lond., Guy's Hospital.
Bird, John Wilfred, L.R.C.P. Lond., Guy's Hospital.
Biss, Hubert Elwyn Jones, L.R.C.P. Lond., Cambridge University and Middlesex Hospital.
Blaber, Percy Leonard, L.R.C.P. Lond., St. Thomas's Hospital.
Boyd, George Samuel James, L.R.C.P. Lond., London Hospital.
Braine-Hartnell, James Christopher Reginald, L.R.C.P. Lond., Middlesex Hospital.
Brodribb, Ernest, L.R.C.P. Lond., St. Mary's Hospital.
Bumstead, Henry James, L.R.C.P. Lond., Cambridge University and St. Bartholomew's Hospital.
Burrow, Vincent, L.R.C.P. Lond., St. Mary's Hospital.
Butler, Arthur George, L.R.C.P. Lond., Guy's Hospital.
Cæsar, Richard Thompson, L.R.C.P. Lond., London Hospital.
Cavenagh, Mainwaring Wentworth Rowland, L.R.C.P. Lond., Adelaide University and London Hospital.
Cayley, Frank Pelrson, L.R.C.P. Lond., Cambridge University and Middlesex Hospital.
Center, William Rudolph, L.R.C.P. Lond., London Hospital and Edinburgh University.
Challis, Oswald, L.R.C.P. Lond., St. George's Hospital.
Chapman, Algernon Vivian, L.R.C.P. Lond., Guy's Hospital.
Chatterton, Harold, L.R.C.P. Lond., University College Hospital.
Chopping, Arthur, L.R.C.P. Lond., St. Thomas's Hospital.
Chute, William Henry, L.R.C.P. Lond., Westminster Hospital.
Clarke, Harold Wrangel, L.R.C.P. Lond., St. Mary's Hospital.
Codrington, William James, L.R.C.P. Lond., St. Bartholomew's Hospital.
Cohen, Joseph, L.R.C.P. Lond., London Hospital.
Coleman, Maurice Were, L.R.C.P. Lond., St. Bartholomew's Hospital.
Connor, George Washington, L.R.C.P. Lond., Middlesex Hospital.
Cross, William Foster, L.R.C.P. Lond., St. Bartholomew's Hospital.
Crutchley, Edgar James Temple, L.R.C.P. Lond., Middlesex Hospital.
Culmer, John James, L.R.C.P. Lond., Guy's Hospital.
Daly, Nolan, L.R.C.P. Lond., Guy's Hospital.
Dartnell, Louis Edward, L.R.C.P. Lond., London Hospital.
De Gébert, Louis Jean Adam, L.R.C.P. Lond., Middlesex Hospital.
Dibbs, William Stewart, L.R.C.P. Lond., Yorkshire College and General Infirmary, Leeds.
Dickins, Sidney John Oldacres, L.R.C.P. Lond., St. Bartholomew's Hospital.
Dingle, Harry, L.R.C.P. Lond., King's College Hospital.
Dolman, Arthur James, L.R.C.P. Lond., Guy's Hospital.
Druitt, Arthur Edward, L.R.C.P. Lond., St. Bartholomew's Hospital.
Durrant, Charles Edwin, L.R.C.P. Lond., St. Thomas's Hospital.
Evans, James, L.R.C.P. Lond., St. Bartholomew's Hospital.
Farrant, Charles, L.R.C.P. Lond., Westminster Hospital.
Ferguson, James Henry, L.R.C.P. Lond., Catholic University of Ireland and Richmond and Adelaide Hospitals, Dublin.
Fisher, John Cecil, L.R.C.P. Lond., Oxford University and St. Bartholomew's Hospital.
Fisher, Richard Denington, L.R.C.P. Lond., London Hospital.
Flavelle, John Mason, L.R.C.P. Lond., St. Bartholomew's Hospital.
Fort, Henry Richard Trecothick, L.R.C.P. Lond., Oxford University and Guy's Hospital.
Fowler, James Grant, L.R.C.P. Lond., London Hospital.
Garman, Cornelius Bernard, L.R.C.P. Lond., London Hospital.
Gayer, Reginald Courteney, L.R.C.P. Lond., St. George's Hospital.
Gervis, Frederick Harcourt, L.R.C.P. Lond., St. Thomas's Hospital.
Graham, Sydney Gagg, L.R.C.P. Lond., Guy's Hospital.
Green, Howard, L.R.C.P. Lond., Charing-cross Hospital.
Gregory, Thomas, L.R.C.P. Lond., Owens College and Royal Infirmary, Manchester.
Griffin, Alfred Ernest, L.R.C.P. Lond., Cambridge University and Middlesex Hospital.
Gwynne, William Purnell, L.R.C.P. Lond., Royal Infirmary, Bristol, and Guy's Hospital.
Hadow, Gerald Elliot, L.R.C.P. Lond., Cambridge University and St. Mary's Hospital.
Haigh, Harold, L.R.C.P. Lond., Cambridge University and St. Mary's Hospital.
Harcourt, John Charles, L.R.C.P. Lond., St. Thomas's Hospital.
Harvey, Henry, L.R.C.P. Lond., London Hospital.
Heath, Arthur, L.R.C.P. Lond., St. Bartholomew's Hospital.
Herring, Edward Ken, L.R.C.P. Lond., Middlesex Hospital.
Hichens, Peverell Smythe, L.R.C.P. Lond., Oxford University and St. Thomas's Hospital.
Hilliard, Harvey, L.R.C.P. Lond., Charing-cross Hospital.
Hobday, James, L.R.C.P. Lond., Cambridge University and St. Bartholomew's Hospital.
Hopkins, Walter Kempson, L.R.C.P. Lond., St. Bartholomew's Hospital.
Howell, John, L.R.C.P. Lond., Guy's Hospital.
Hunter, Clement Harris, L.R.C.P. Lond., Guy's Hospital.
Hussey, James, L.R.C.P. Lond., St. Bartholomew's Hospital.
Hyde, Harry Feeney, L.R.C.P. Lond., Cambridge University and St. Bartholomew's Hospital.
Izard, Herbert Edward, L.R.C.P. Lond., Guy's Hospital.
Jackson, Thomas Leonard, L.R.C.P. Lond., Cambridge University and Guy's Hospital.
Jameson, Robert William, L.R.C.P. Lond., St. Bartholomew's Hospital.
Jones, Frederick Pryce, L.R.C.P. Lond., Charing-cross Hospital.
Jones, Philip Theodosius, L.R.C.P. Lond., St. Bartholomew's Hospital.
Jones, Samuel Lloyd, L.R.C.P. Lond., University College Hospital.
Jones, William Meredith, L.R.C.P. Lond., Charing-cross Hospital.
Kempster, Christopher Richard, L.R.C.P. Lond., Westminster Hospital.
Langford, Frederick Charles, L.R.C.P. Lond., Charing-cross Hospital.
Larbalestier, William Robert, L.R.C.P. Lond., Charing-cross Hospital.
Lawrence, Henry Gwynne, L.R.C.P. Lond., St. Mary's Hospital.
Lewis, George William, L.R.C.P. Lond., University College Hospital.
Lowsley, Montagu Marmion, L.R.C.P. Lond., Charing-cross Hospital.
Lulham, Edwin Percy Habberton, L.R.C.P. Lond., Guy's Hospital.
McDougal, Ernest Duncan, L.R.C.P. Lond., St. Bartholomew's Hospital.
Maclennan, Duncan Neil, L.R.C.P. Lond., Kingston (Canada), London, and University College Hospitals.
Manning, Richard Beattie, L.R.C.P. Lond., St. Mary's Hospital.
Marriott, Cecil Edward, L.R.C.P. Lond., Cambridge University and University College Hospital.
Maskell, John William, L.R.C.P. Lond., University College, and Royal Infirmary, Liverpool, and St. Mary's Hospital.
Mason, Gerald Bovell, L.R.C.P. Lond., London Hospital.
Mathison, Arthur John, L.R.C.P. Lond., Guy's Hospital.
Matthews, Samuel Ryder Russell, L.R.C.P. Lond., St. Mary's Hospital.
Maxwell, John Presten, L.R.C.P. Lond., St. Bartholomew's Hospital.
May, Henry James, L.R.C.P. Lond., Cambridge University and St. Bartholomew's Hospital.
Maynard, Edwin, L.R.C.P. Lond., London Hospital.
Miles, Usher William Newton, L.R.C.P. Lond., King's College Hospital.
Milsome, Harry Blunt, L.R.C.P. Lond., Cambridge University and St. Bartholomew's Hospital.
Moffatt, Alfred Arthur Paget, L.R.C.P. Lond., Owens College and Royal Infirmary, Manchester.
Montgomery, Edwin Cecil, L.R.C.P. Lond., Charing Cross Hospital.
Moon, Robert Oswald, L.R.C.P. Lond., Guy's Hospital.
Mornement, Robert Harry, L.R.C.P. Lond., Middlesex Hospital,
Nicholson, Tom Marshall, L.R.C.P. Lond., Guy's Hospital.
Old, Joseph Edgar Sidney, L.R.C.P. Lond., London Hospital.
Padwick, John Cayley, L.R.C.P. Lond., St. Bartholomew's Hospital.
Parfitt, John Brodribb, L.R.C.P. Lond., Guy's Hospital.
Parker, Robert Derwent, L.R.C.P. Lond., Cambridge University and St. Bartholomew's Hospital.
Partridge, Lionel Strowd, L.R.C.P. Lond., Oxford University, Royal Infirmary, Edinburgh, and Middlesex Hospital.
Paterson, William Henry John, L.R.C.P. Lond., St. Thomas's Hospital.
Phillips, John Robert Parry, L.R.C.P. Lond., St. Thomas's Hospital.
Pigg, Thomas Strangeways, L.R.C.P. Lond., St. Bartholomew's Hospital.
Pike, Norman Howard, L.R.C.P. Lond., Guy's Hospital.
Poole, Thomas Brice, L.R.C.P. Lond., Durham University and Guy's Hospital.
Pope, William Henry, L.R.C.P. Lond., St. Bartholomew's Hospital.
Potter, Bernard Elwell, L.R.C.P. Lond., Charing-cross Hospital.
Querney, Thomas Mather, L.R.C.P. Lond., Owens College and Royal Infirmary, Manchester.
Reed, John Charles Groscort, L.R.C.P. Lond., Guy's Hospital.
Riddett, Albert John, L.R.C.P. Lond., Middlesex Hospital.
Rothwell, Thomas Andrew, L.R.C.P. Lond., Owens College and Royal Infirmary, Manchester.
Rowland, Frederick Samuel, L.R.C.P. Lond., University College and Royal Infirmary, Liverpool.
Rowland, Frederick William, L.R.C.P. Lond., Guy's Hospital.
Sanders, Adolph, L.R.C.P. Lond., Rush Medical College, Chicago, U.S.A., and St. Mary's Hospital.
Schaub, Justus Martin, L.R.C.P. Lond., King's College Hospital.
Skey, Arthur Richard Harry, L.R.C.P. Lond., St. Bartholomew's Hospital.
Smith, Arthur Grosart Lehman, L.R.C.P. Lond., Middlesex Hospital.
Smith, James, L.R.C.P. Lond., Cambridge University and St. Thomas's Hospital.
Spon, Harry James, L.R.C.P. Lond., Guy's Hospital.
Stammers, George Elliot Frank, L.R.C.P. Lond., University College and Royal Infirmary, Bristol.
Stares, Charles Lindsay Baker, L.R.C.P. Lond., St. Thomas's Hospital.

Stevenson, Thomas Henry Craig, L.R.C.P. Lond., University College Hospital.
Stockdale, Ernest Malcolm, L.R.C.P. Lond., University College and Royal Infirmary, Liverpool.
Strange, Robert Gordon, L.R.C.P. Lond., St. Thomas's Hospital.
Takayasu, Michishige, L.R.C.P. Lond., St. Thomas's Hospital.
Tebbs, Lionel Virtue, L.R.C.P. Lond., St. Thomas's Hospital.
Thomas, James, L.R.C.P. Lond., St. Bartholomew's Hospital.
Thomas, Thomas, L.R.C.P. Lond., Middlesex Hospital.
Thurnell, Herbert Leslie, L.R.C.P. Lond., Cambridge University and St. Thomas's Hospital.
Tidcombe, Francis Sitwell, L.R.C.P. Lond., St. George's Hospital.
Tod, Hunter Finlay, L.R.C.P. Lond., Cambridge University and London Hospital.
Verdon, Egbert Sumner, L.R.C.P. Lond., Cambridge University and St. Thomas's Hospital.
Waldron, Francis Thomas, L.R.C.P. Lond., London Hospital.
Watkins, Bernard Vincent, L.R.C.P. Lond., Owens College and Royal Infirmary, Manchester.
Watson, Charles Everard Samuel, L.R.C.P. Lond., Guy's Hospital.
Watson, William Douglas, L.R.C.P. Lond., London Hospital.
Wheeler, Malcolm, L.R.C.P. Lond., Edinburgh University and St. Thomas's Hospital.
White, Henry, L.R.C.P. Lond., London Hospital.
Wicks, Spencer, L.R.C.P. Lond., Cambridge University and London Hospital.
Wilkins, Walter, L.R.C.P. Lond., Charing-cross Hospital.
Williams, John Sydney, L.R.C.P. Lond., London Hospital.
Williamson, Oliver Key, L.R.C.P. Lond., Cambridge University and University College Hospital.
Wilmer, Charles Henry, L.R.C.P. Lond., St. Bartholomew's Hospital.
Woolley, Thomas Fisher, L.R.C.P. Lond., Mason College, Queen's and General Hospitals, Birmingham.
Wright, Alfred Bosworth, L.R.C.P. Lond., London Hospital.
Wykes, William Henry, L.R.C.P. Lond., Middlesex Hospital.

The following gentlemen have passed the necessary examinations, and, having previously received the approval of the Royal College of Physicians of London, have been admitted Diplomates in Public Health of the Royal Colleges of Physicians and Surgeons, and are now entitled to register:—

Felix Paul Bartlett, M.R.C.S. Eng. and L.R.C.P. Lond., St. George's Hospital; George Arthur Batchelor, M.D., C.M. Aberd. and M.R.C.S. Eng., London and University College Hospitals; Charles Shaw Bond, L.R.C.P. Lond. and M.R.C.S. Eng., Cambridge University and Guy's Hospital; Robert Welsh Branthwaite, L.R.C.P. Lond. and M.R.C.S. Eng., Charing-cross Hospital; Albert Ernest Cope, M.D. Durham and M.B. Lond., Durham University and King's College Hospital; William John Charles Keats, L.R.C.P. Lond. and M.R.C.S. Eng., St. Bartholomew's and King's College Hospitals; Charles Pye Oliver, M.D. Lond., M.R.C.S. Eng., L.R.C.P. Lond., and L.S.A. Lond., Charing-cross and University College Hospitals; George Henry Patterson, L.R.C.P. Lond. and M.R.C.S. Eng., St. Bartholomew's Hospital; Frank Arthur Spear, M.R.C.S. Eng. and L.S.A. Lond., St. Bartholomew's Hospital; and James Arthur Thompson, L.R.C.P. and S. Irel., London Hospital.

UNIVERSITY OF LONDON.—The following candidates passed the Preliminary Scientific (M.B.) Examination, January, 1896:—

CHEMISTRY AND EXPERIMENTAL PHYSICS.

*Addison, Oswald Lacy, University College.
Banham, Sidney Marshall, Kingswood School and University Tutorial College.
Barnard, Anne Thompson, University Tutorial College and private tuition.
Birks, Francis Joseph, Wesley College, Sheffield.
*Bourke, Isidore MacWilliam, University Tutorial College and St. George's Hospital.
*Brown, Allen Bathurst, University Tutorial College and St. Bartholomew's Hospital.
*Burgess, Amy Jane, London School of Medicine for Women and University Tutorial College.
Carpmael, Norman, Dulwich and University Colleges.
Clarke, Geoffrey, Owens College.
*Cunningham, Herbert H. B., St. Mary's Hospital and Birkbeck Institute.
Damian, Oswald Joseph Stanley, St. George's Hospital, private study, and Alwyne Institute.
*Forsyth, John Andrew Cairns, Yorkshire College.
*Fraser, Sarah Louise, Bedford College, London.
*French, John Gay, Alwyne Institute.
Gibson, Frederick Goulburn, Guy's Hospital.
Grogono, Raby Montague, Merchant Taylors' School and University Tutorial College.
*Hammond, John Abbot Bolding, Guy's Hospital.
*Harvey, Percival George, St. Bartholomew's Hospital.
*Hayden, Arthur Falconer, St. Mary's Hospital.
James, Reginald Valpy, Clifton Laboratory and private study.
*Jones, Bertrand Seymour, University Tutorial College.
Kennard, Alfred Dudley Eskell, Guy's Hospital and Carlyon College.
Kirkness, William Ronald, King's College and Alwyne Institute.
Lawson, Frederick James, University and University Tutorial Colleges.
*McEnery, William Augustine, University College and Middlesex Hospital.
*Marshall, Arthur Thomson, King's College.
*Marval, Alice Marietta, University and University Tutorial Colleges and private tuition.
Matthews, Thomas Arnold, Guy's Hospital and Carlyon College.
Mayes, Frederick James Alexander, University Tutorial College and private study.
Mills, Henry, St. Bartholomew's Hospital.
*Pearce, Thomas Massey, St. Bartholomew's Hospital.
*Pickin, Frederic Harold, University College, Bristol.
Reynolds, Percy, B.A., private study and University Tutorial College.
*Roke, William Stanley, University and University Tutorial Colleges.
Savatard, Louis Charles Arthur, Guy's Hospital.
Shaw, Charles Cecil Connock, St. Mary's Hospital and Birkbeck Institute.
*Smith, Douglas Wilberforce, Edinburgh University.
Smith, Frederick Morton Vincent, Guy's Hospital.
*Soltau, Alfred Bertram, London Hospital.
*Stannus, Hugh Stannus, St. Thomas's Hospital and private study.
Thomas, William Jones, Burlington House, Cambridge, and private study.
*Trubshaw, Kenneth Vincent, Guy's Hospital.
Tucker, Edith Eleanor, University Tutorial College.
*Van Cuijlenburg, Winifred F., University Tutorial College.
*Wethered, Ernest, St. Bartholomew's Hospital.

BIOLOGY.

*Amsler, Albert Maurice, St. Paul's School.
*Armitage, John James, Science School, Cheltenham.
Barnes, Ernest Charles Page, Carlyon College.
*Beattie, Frederick Alexander, Guy's Hospital and University Tutorial College.
Bilke, Lily Alice, Carlyon College.
*Birch, Anthony, St. Mary's Hospital.
*Bonallo, William, Rutherford College and private study.
Boyle, Henry Edmund Gaskin, St. Bartholomew's Hospital.
*Butcher, William James, Owens College.
*Caddy, Adrian, St. Paul's School.
*Calcott, James Douglas C., University College, Bristol.
Châtelain, Victor Albert, University Tutorial College.
Churchill, George Brooke Forbes, University Tutorial College.
*Churchill, John Aylward, St. George's Hospital.
Cleaver, Anne Fenton, University Tutorial College.
*Cope, Gilbert Edgar, Westminster Hospital and Carlyon College.
*De Pass, Jeannette Rachel, King's College.
Evans, Daniel Cyril, University College, Cardiff.
*Evans, George, Guy's Hospital and University Tutorial College.
*Forsyth, David, Guy's Hospital and University Tutorial College.
*Goodall, Joseph Strickland, City of London College and Middlesex Hospital.
*Hatrick, Charles Dainty, University College.
Hopkins, Lionel Gordon, University College, Aberystwith.
*Hunt, Sydney, private study and University Tutorial College.
*Izard, Alfred Francis, Cranleigh School and University Tutorial College.
*Kiddle, Horace Harvard, St. Thomas's Hospital, private study, and University Tutorial College.
*Lacy, Hugh Kirbell, Guy's Hospital and Alwyne Institute.
*Lindsey, Edward Vaughan, St. Bartholomew's Hospital.
*Little, John Wishart, University Tutorial College and St. Thomas's Hospital.
Mackay, Ernest Charles, St. Bartholomew's Hospital and private study.
Melhuish, Herbert Michael Henry, St. Bartholomew's Hospital.
*Minkley, Henry Richmond, St. Mary's Hospital and Mason College.
*Morgan, Daniel Leigh, Guy's Hospital and Alwyne Institute.
Mosscrop, Gilbert Phillips, University Tutorial College.
Pank, Harold William, St. Bartholomew's Hospital.
*Pearson, Arthur, Guy's Hospital.
Pilkington, Arthur Frederick, St. Mary's Hospital.
Roberts, Stuart Kenyon, St. Bartholomew's Hospital and private tuition.
Robinson, Ellis Wynne, University College, Cardiff, and private study.
Sibree, Alice Deborah, Oxford University Museum.
Smith, Charles William, Wesley and Firth Colleges and private study.
*Stormont, James Henry, Mason College.
Stuart, Emily Gertrude, Bedford College, Oxford University Lectures, and private tuition.
*Tattersall, Harold, Guy's Hospital.
Taylor, Clifford John, University College, Bristol.
*Taylor, George Orissa, London Hospital.
*Taylor, William Benjamin B., Merchant Taylors' School and London Hospital.
*Thomas, Arthur Hitchings, University College, Cardiff.
*Utley, John Ernest, Owens College.
*Wall, Vivian Francis, University Tutorial College and St. Mary's Hospital.
*Ward, Herbert Septimus, University College, Cardiff, and private study.
Watson, John Harry, University College, Liverpool.
*Wetherell, Frank Cordeux, Guy's Hospital and Alwyne Institute.
Wiggins, Clare Aveling, St. Mary's Hospital and Birkbeck Institute.
*Williams, Alfred Carleton, King's College.
*Woodwark, Arthur Stanley, St. Bartholomew's Hospital and private study.
Worth, Bertram Stanley, London Hospital and University Tutorial College.
*Niall, Eugene Michael, St. Bartholomew's Hospital.

* These candidates have now completed the examination.

LITERARY INTELLIGENCE.—Mr. C. Ricker of St. Petersburg has just brought out the first number of the Annales de Chirurgie Russe, edited by Professors Sklifossowsky and Weliaminoff of that city. Six parts will be issued yearly, each having from 128 to 160 octavo pages. The Annales are published in the Russian language, and will contain original articles on Surgery, Reviews of Surgical Works, Reports and Proceedings of Surgical Societies in Russia and Eastern Europe, Bibliography, &c. The subscription for countries included in the postal union is 30 francs.

SUPERANNUATION OF A MEDICAL OFFICER.—At the last meeting of the Bristol board of guardians it was decided, subject to the sanction of the Local Government Board, to grant a superannuation allowance of £70 per annum to Mr. R. Fendick, medical officer of No. 1 district and St. Peter's Hospital, who has resigned the appointment owing to failing health and old age. The chairman stated that Mr. Fendick had given thirty-five and a half years' services, that no official complaint had ever been laid against him, and that he had been a most painstaking officer.

WITH a view to letting the press know exactly what vegetarianism can accomplish in the gastronomic art Mr. A. F. Hills, the President of the London Vegetarian Society, entertained a number of ladies and gentlemen of the fourth estate at the Ideal Café, Tottenham-court-road, on Feb. 14th last. Of course, the various dishes were composed entirely of vegetables and fruit, but such things as macaroni cutlet and dishes prepared *à la Française*, *à la Normandy*, &c., bore some resemblance to the food eaten by the ordinary "corpse" eater, to use the not very elegant phrase of one of the speakers. We see no reason to change our opinion that a mixed diet is preferable.

INFIRMARY MEDICAL SUPERINTENDENTS' SOCIETY. The monthly meeting of this society was held on Feb. 13th at Greenwich Infirmary. The chair was taken by Mr. J. R. Lunn, F.R.C.S.Edin., &c. Mr. Walter Burney showed cases of Large Varicocele, Amputation of the Upper Arm after Railway Accident; Friedreich's Disease in two Brothers; Locomotor Ataxy with Optic Atrophy; Albuminuric Retinitis; Hodgkin's Disease; Enteric Fever with Thrombosis of both Femoral Veins; Leucoderma; Large Aneurysm of Popliteal Artery cured by Ligation of the Femoral Artery; Cerebral Tumour; Pseudo-hypertrophic Paralysis; and Lepra Anæsthetica. The provisions of the Poor Law Officers Superannuation Bill were discussed, and it was decided to suggest several amendments to the proposed measure.

SOUTH-WEST LONDON MEDICAL SOCIETY.—A meeting of this society was held in Wandsworth on Feb. 12th, the President, Dr. Gilbert Richardson, being in the chair.—Mr. Adams Frost gave a lantern demonstration of some Ophthalmic Appearances, with special reference to the various forms of Optic Neuritis.—A hearty vote of thanks was moved by the President and seconded by Mr. Howell to Mr. Frost for his interesting address, and a similar vote to Mr. Cuthbert Wyman for his assistance with the lantern, both being carried with acclamation.—The following notice has been sent to every member of the society:—"The council desire to draw the attention of those members whom it may concern to Section 1, Article 2 of the by-laws, and to warn members that there are certain companies carrying on operations in the district which are in direct infringement of this by-law. The council therefore consider that any connexion on the part of a member with these companies 'lowers the dignity of the profession' within the meaning of the by-laws."

THE ÆSCULAPIUS LODGE OF FREEMASONS.—An ordinary meeting of this Lodge, No. 2410, was held at the Café Royal, Regent-street, on the 12th inst. Dr. G. Crawford Thomson, the Master, presided. There was a good attendance of members and many medical visitors from the colonies. Mr. M. P. Mayo Collier, M.S., M.B. Lond., F.R.C.S.Eng., was elected a joining member. Mr. W. Harrison, M.A. Cantab., and Mr. R. T. Hacker Bodilly, M.R.C.S.Eng., L.R.C.P. Lond., were admitted to the third degree. Mr. W. Stacy Colman, M.D., M.R.C.P. Lond., and Mr. C. Henson Broadhurst, M.R.C.S. Eng., L.R.C.P. Lond., were admitted into Freemasonry. Mr. G. Rowell, F.R.C.S. Eng., L.R.C.P. Lond., was proposed as a joining member. After the business of the lodge was concluded the members dined together and spent a very pleasant evening, which was enhanced by the musical talents of some of the members. The event of the evening was the presentation by the Master of an elegant spirit-stand, a spirit-kettle, and a silver salver to Thomas Dutton, M.D., the hon. sec. of the lodge, which had been subscribed for by the members of the lodge and given as a token of thanks and fraternal esteem for the manner in which the clerical work of the lodge had been carried out during the five years in which Dr. Dutton had held the office of secretary. Dr. Dutton made a suitable reply to Dr. Thomson's excellent speech, and said the gift would always remind him of the truly fraternal feeling which had existed between himself and the members of the Æsculapius Lodge.

DR. LEONARD REMFRY has resigned the office of obstetric physician to out-patients at the Great Northern Central Hospital, Holloway-road, N.

DR. CLEMENT GODSON has been elected an Honorary President of the International Congress of Gynæcology and Obstetrics to be held in Geneva in September.

DR. M. ARMAND RUFFER has resigned the post of Director of the British Institute of Preventive Medicine and has been appointed Professor of Bacteriology at the Medical School of Cairo, vice Dr. Kaufmann, resigned.

ROYAL METEOROLOGICAL SOCIETY.—The monthly meeting of this society was held on Wednesday evening, the 19th, inst., at the Institution of Civil Engineers, Westminster, Mr. Edward Mawley, F.R.H.S., President, in the chair. The report on the Phenological Observations for 1895 was presented by Mr. Mawley. Mr. R. H. Scott, F.R.S., read a paper on the Recent Unusually High Barometer Readings in the British Isles, in which he stated that the daily weather chart for 6 P.M. on Jan. 8th was the first in these islands that ever showed thirty-one inches.

DEATH FROM A "LIQUID WEED DESTROYER."—Last week a lady at Tockington, Gloucestershire, whilst making a tipsy cake added to it some liquid weed destroyer contained in a jar, believing it to be home-made wine. She drank some of the liquid and was taken ill about three hours later, and although medical assistance was obtained died a few hours afterwards. At the inquest the coroner (Mr. E. M. Grace) read a telegram from the makers stating that arsenic was contained in the liquid. A verdict of "Death from misadventure through accidentally drinking a weed destroyer containing arsenic" was returned.

MEDICAL MAGISTRATES.—Dr. H. J. Strong of Worthing recently made the declaration and took his seat on the Commission of the Peace for the county of Sussex.—The Lord Chancellor has added to the Commission of the Peace for the county of Cambridgeshire the name of Dr. Donald MacAlister, F.R.C.P., Linacre Lecturer, Fellow and Tutor of St. John's College, and physician to Addenbrooke's Hospital, Cambridge.—Mr. Dennis Barry O'Flynn, M.A., M.D., Glanmire, county Cork, has been appointed a magistrate of the county on the recommendation of Lord Bandon, Lord-Lieutenant of the county.

CARDIFF MEDICAL SOCIETY.—The usual monthly meeting was held on Feb. 7th, the President, Dr. Edgar Jones, being in the chair. Dr. Tatham Thompson showed a girl in whom Mules' Operation for Ptosis was performed. The result was excellent.—Dr. Rhys Griffiths showed a man with Syphilitic Disease of the Elbow Joint. Dr. Rhys Griffiths exhibited the following specimens—(1) a catheter which had been removed from the male bladder by perineal section; (2) a Zwancke's pessary which had lain in the vagina for two and a half years and had ulcerated into the bladder; (3) a fœtus in which the abdominal wall was deficient; and (4) a brain from a case in which the lateral ventricles had been tapped.—Mr. C. A. Griffiths read a paper on the Surgery of Empyema. He advocated free incision of the pleural cavity combined with the resection of ribs and showed a tube devised by him in which there was an arrangement for retaining it in the chest cavity.—A good discussion in which many members took part followed.

A MEETING of the Anatomical Society of Great Britain and Ireland was held at St. Mary's Hospital on Feb. 10th. Dr. Rolleston and Dr. Wardrop Griffiths showed specimens of Hearts having a Fibrous Band across the Left Auricle. Dr. Griffiths suggested that this condition was brought about by the remains of the left sinus venosus caused by the portal veins in an early stage of development. Dr. Rolleston regarded the condition as pathological. Mr. E. M. Corner gave an account of three papers: (1) On Some Processes at the Base of the Skull, in which he distinguished between the paramastoid and paroccipital processes; (2) On Some Points in the Anatomy of the Elbow-joint, in which he suggested homologies for certain structures in the elbow with others in the knee; (3) a Comparison of the Temporal Fossa with the Cephalic, Gnathic, and Vertical Indices. Dr. J. H. Sequeira showed a specimen of Ectopia Vesicæ, with Patent Vitelline Duct in an Infant. Dr. Barclay Smith read a paper on the Astragalo-calcaneo-navicular Joint. Mr. J. H. Targett showed specimens of Hip-bones from Cases of Congenital Dislocation.

THE DIFFUSION OF SMALL-POX.—There were no deaths registered from small-pox last week in London or any of the other thirty-two large towns. In London the returns of the Metropolitan Asylums Board show that on Saturday last the number of small-pox patients remaining under treatment on the ships was 54, as compared with 70, 74, and 64 on the three preceding Saturdays. But the chief interest in regard to small-pox prevalence still centres round Gloucester and Cardiff. The ringleaders in connexion with the burning of the Stroud small-pox hospital at Oakridge have been sentenced by Mr. Justice Grantham, at Cheltenham, to twelve months' hard labour, and few people will be found to say that the sentences were too heavy. The reason for holding the Assizes at Cheltenham, rather than at Gloucester as usual, was stated by Judge Grantham to be the risk at the latter place of a small-pox epidemic; and he spoke with commendable plainness on the inaction of the guardians in the city in the matter of the enforcement of the vaccination laws. His remarks have led Mr. Darling, M.P., to give notice of a question in the House of Commons next Tuesday, having for its object the ascertainment whether the law of vaccination cannot be made something more than the dead letter which it has become in so many places. Meanwhile in Gloucester the health authorities are straining every nerve to combat the malady in its present proportions. In Cardiff there had been to the end of last week 27 cases of small-pox, 18 of them having come from the workhouse, including two fresh cases last week. In the town the medical officer of health has taken pains to secure the revaccination of all inmates of the infected houses as far as possible. In the workhouse the task of obtaining the consent of the inmates to be revaccinated has been one of extreme difficulty, owing to the rooted objection of some of the paupers to undergo the operation. According to the medical officer of the "house," some form of bribery has had to be used in certain cases, and the admission caused not a little amusement at the board meeting at which it was made. On Tuesday of last week the vaccination committee at Cardiff decided, by 4 votes to 3, to appoint six assistant vaccination officers for the purpose of conducting a house-to-house inquiry throughout the town to secure the vaccination of all unvaccinated children and others. But on Saturday the guardians, having before them this proposal of the committee, held different views, and by 27 votes to 7 decided, on the score of expense, that it was needless to appoint the officers in question. On Saturday last a railway hand at Canton, Cardiff, fell ill with small-pox and was conveyed to hospital. At Aberdare a further case has been reported in the person of an inmate of a lodging-house. At Dowlais a person suffering from small-pox has been discovered to have attended a wedding with manifestations of the disease well out on him. At Brynmawr the person who imported small-pox into the town, and who had come to a lodging-house from Cardiff, *viâ* Newport and Abergavenny, escaped last week from hospital and was only found again after long search, his place of hiding being a lodging-house in the place. In the Forest of Dean a case of small-pox has been reported at Westbury, and the house where the patient lives has been placed in quarantine by the urban district council. The Bridgend council have given a contract to Messrs. Humphreys for an iron building at a cost of £120, to be erected and ready for use in five days in view of possible emergencies. In the Wigan sanatorium there were at the beginning of last week 13 cases of small-pox, in addition to 6 of typhus fever, and preventive measures are being adopted for curtailing the diseases. The isolation of both maladies in one building is a questionable proceeding. At Oldham the attacks of small-pox in the fortnight ended Feb. 8th were 2 only, as compared with 6 in the preceding fortnight. At Camborne the medical officer of health notified a case of small-pox at the end of last week occurring in one of the miners who had just returned from Johannesburg.

Parliamentary Intelligence.

NOTES ON CURRENT TOPICS.

The Vaccination Commission.

A NUMBER of petitions have been presented to the two Houses of Parliament praying for an early presentation of the report of the Royal Commission on Vaccination.

Holloway Sanatorium.

The House of Commons at its meeting on Friday, the 14th inst., took steps for procuring the public issue of a copy of the report of Mr. C. S. Bagot and Mr. F. Needham to the Lunacy Commissioners with reference to the inquiry made by these two gentlemen into certain occurrences at the Holloway Sanatorium. The member on whose motion the House took action was Mr. John Ellis.

New Bills.

During the first week of the session a great many bills were introduced by private members, among them the following of special interest to the medical profession—viz.: Bill to Provide for the Registration of Midwives, introduced by Mr. Skewes-Cox and Mr. Bonsor; Bill for the National Registration of Plumbers; Bill to make Better Provision for the Regulation and Control of Cemeteries provided under the Public Health (Interments) Act, 1879; Bill to Amend the Law relating to the Appointment of Members of Dispensary Committees in Ireland; Bill to Regulate and Control Street Noises; Bill to Amend and Extend the Law Affecting the Introduction of Steam and Moisture in Factories, Sheds, and Workshops, and for Regulating the Labour of Children and Young Persons Working in these Places; Bill for Better Securing the Purity of Beer; Bill to Amend the Burial Laws; and Bill to Amend the Law Relating to Coroner's Inquests in the Case of Fatal Accidents on Railways.

Notification of Diseases.

Sir John Brunner has addressed to the President of the Local Government Board the following interrogatories: How many local authorities have adopted the Notification of Diseases Act? How many of these authorities are there who are capable of adopting the Act? and, Whether the right hon. gentleman has considered the advisability of making the Act compulsory instead of permissive? The reply is expected in the course of next week.

Plumbers' Registration Bill.

Among the private bills shortly to be introduced in the House of Commons during this session is the Plumbers' Registration Bill, which is backed by Mr. Lees Knowles, Earl Compton, Mr. Dixon, Dr. Farquharson, and Mr. Sexton, and has the support of some of the principal municipalities of the United Kingdom.

HOUSE OF COMMONS.

THURSDAY, FEB. 13TH.

The Increase of Rabies.

Mr. Wolff asked the Home Secretary whether, in consideration of the large increase of rabies in the United Kingdom, he would make such regulations that all dogs be registered and have a number attached to their collar corresponding with the number on the register, so that their owners could be ascertained, and the police be instructed to take up and destroy any dogs found at large without such number.—Mr. Walter Long, President of the Board of Agriculture, replied to the question, saying that legislation would be required in order to give effect to the suggestion of his hon. friend, and he was informed that the experience of other countries had shown that the measure, while causing considerable inconvenience and expense, was not likely in itself to bring about the extinction of rabies. There could, however, be no doubt of the importance of the adoption of efficient measures for the seizure of stray dogs, and the prevention of the spread of the disease would be greatly assisted by the efficient performance of their duties in this respect by local authorities and the police.—Mr. Donkin asked whether the Government would take into serious consideration the advisability of the efficient compulsory muzzling of all dogs in the United Kingdom for twelve months, as had been done in Belgium with success, and also the efficient inspection of all dogs imported into this country.—Mr. Long said that the suggestion of his hon. friend would be a right one to adopt if it were found to be practicable and if there was a strong feeling among dog-owners and the public in favour of a vigorous and well-sustained attempt to reduce the amount of rabies. So far as he could judge no such feeling existed. He hoped that similar results to those obtained in Lancashire and Yorkshire would be secured in London and the home counties.

Provision for the Aged Poor.

Mr. Balfour, in reply to a question, intimated that it is the intention of the Government to appoint a small committee of experts to deal with the subject of making provision for the aged poor, as recommended by the Commission last year. He assured the House that it will be appointed without any undue delay.

FRIDAY, FEB. 14TH.

Proposed International Commission on Lunacy.

Mr. Kenny asked the Home Secretary whether, in view of the magnitude of the annual increase in the number of lunatics, as shown in the Parliamentary paper issued during the recess, he would take measures to promote an International Commission of Inquiry into the subject of the general increase of insanity, with the object of devising means to arrest its progress.—Sir Matthew White Ridley replied that he had no evidence in his possession to lead him to believe that any practical result would follow the appointment of such a commission, but he was prepared to receive representations on the subject from the hon. member.

MONDAY, FEB. 17TH.

Dangerous Lamps.

Mr. Jesse Collings, answering a question on this subject put by Mr. Boulnois, said that the Home Secretary has been considering the increase in the number of deaths arising from the use of dangerous lamps, and hopes to be able to secure the reappointment of the Select Committee which in 1894 began an inquiry into the subject.

TUESDAY, FEB. 18TH.

The Vaccination Commission.

An inquiry with regard to the position of the work of this Commission elicited from Mr. Chaplin, President of the Local Government Board, the reply that the Commissioners are actively engaged in the consideration of their report and hope to be able to present it before long.

The Importation of Adulterated Food Products.

During the debate on the Address at this sitting of the House Mr. Kearley introduced the subject of the importation of adulterated food products and its pernicious effects on this country and its trade. He claimed that the goods should be inspected at the port of entry, and if found to be adulterated that they should be at once confiscated. Several members spoke in support of this claim.—Mr. Walter Long, President of the Board of Agriculture, replied on behalf of the Government. He did not deny that there is considerable room for amendment and reform in the adulteration laws. He hesitated, however, to express an opinion as to the direction reform should take, because a committee would be moved for almost immediately to continue the inquiry undertaken by the late Parliament, and he looked to the labours of that committee with some confidence to arrive at conclusions which would enable the subject to be effectively treated. If he made any suggestion it would be that there should be a consolidation in one Act of all the adulteration laws, and that their administration should be in the hands, not of three departments, but of one department. The Government had not been idle in the matter. They had discovered through their analysts a considerable amount of adulteration in imported butter, and, so far from allowing butter so adulterated to be sent broadcast over the country, they had informed the consignees that their butter was adulterated and that if they attempted to sell it they would find themselves in difficulties; and the Government had taken the further precaution, in cases in which they had reason to suspect the good intentions of the consignees, of informing the local authorities where those consignees lived that the butter going to them was adulterated, in order that the public might be protected from fraud. As to seizing fraudulent goods at the port of entry his legal advisers informed him that such seizures could not be made; that until an adulterated article was sold no offence was committed. He was willing to admit that seizure at the port might be a more desirable remedy, but the matter would require much consideration, and no doubt it would receive it at the hands of the committee.—Sir Walter Foster also took part in the discussion. He assured the House that the moment they began to look into these things at the port of entry, fraudulent importers were checked by a salutary fear of exposure, and if this supervision could be carried further they might be able in time to prevent adulterated articles from reaching the retailers. The three articles in this country which principally came from abroad were butter, lard, and cheese. Twenty-five per cent. of the butter sold was said to be adulterated, and under the existing administration of the law only 10 per cent. was detected. If confiscation at the port of entry were rigorously enforced a stop would be put to the importation of this adulterated butter. Adulterated lard lowered the price of the lard made by the home producer. Much of the cheese imported had no dairy product in it, being made from skimmed milk, animal fats, and other substances. It contained nothing nutritious and often caused trouble to those who ate it. In the interests of English agriculture these nefarious practices should cease by the action of the Custom House authorities. Lard, cheese, and butter were imported to the value of £22,000,000 a year. The public were practically unable to protect themselves against adulteration and had a right to look not only to the local authorities but to Imperial authorities to protect them from fraud on their pockets as well as from injury to their health by the foisting upon them of articles which were in no sense what they professed to be.

WEDNESDAY, FEB. 19TH.

The Early Closing Question.

At this sitting of the House Sir John Lubbock succeeded in getting a second reading for his Shops (Early Closing) Bill. Among those who supported the measure was Dr. Farquharson, who did so mainly on the ground that it will conduce to the physical well-being of shop assistants.

BOOKS, ETC., RECEIVED.

ALCAN, FÉLIX, Paris.

Association Française de Chirurgie. Neuvième Congrès de Chirurgie. Paris, 1895. pp. 1007.

BAILLIÉRE, TINDALL AND COX, King William-street, Strand, London.

A Manual of Pharmacology and Therapeutics. By Wm. Murrell, M.D., F.R.C.P. 1896. pp. 657. Price 10*s.* 6*d.*

BALE, JOHN AND SONS, Great Titchfield-street, Oxford-street, London.

Our Growing Children. By Gerard Smith, M.R.C.S. 1896. pp. 104. Price 2*s.* 6*d.*

BLACK, ADAM AND CHARLES, London.

Text-book of General Pathology and Pathological Anatomy. By Richard Thoma, translated by A. Bruce, M.A., M.D., F.R.C.P., F.R.C.S.E. Vol. I. Illustrated. 1896. pp. 624. Price 30*s.*

CHAPMAN AND HALL, London.

The Present Evolution of Man. By G. Archdall Reid. 1896. Price 7*s.* 6*d.*

CHURCHILL, J. & A., Great Marlborough-street, London.

Clinical Lectures on Mental Diseases. By T. S. Clouston, M.D. Edin., F.R.C.P.E. Fourth edition. 1896. pp. 747. Price 14*s.*

Uric Acid as a Factor in the Causation of Disease. By Alex. Haig, M.A., M.D. Oxon., F.R.C.P. Third edition. Illustrated. 1896. Price 12*s.* 6*d.*

A Handbook on Leprosy. By S. P. Impey, M.D., M.C. 1896. Price 12*s.*

HIRSCHWALD, AUGUST, Berlin.

Die Adenomyome und Cystadenome der Uterus- und Tubenwandung. Von Fred. v. Recklinghausen. Mit 12 Tafeln. 1896.

KEGAN PAUL, TRENCH, AND CO., Charing-cross road, London.

The Functional Examination of the Eye. By J. H. Claiborne, Jun., M.D. Illustrated. 1895. Price 5*s.*

KELLY AND CO., High Holborn, London, W.C.

Kelly's Handbook to the Titled, Landed, and Official Classes for 1896. Twenty-second Annual Edition. Price 16*s.*

LAMOUREUX AND CO., Rio de Janeiro.

Annual Reports of the Strangers' Hospital of Rio de Janeiro for the years 1892, 1893, 1894, and 1895, with the By-laws and Regulations of the Hospital.

MURRAY, JOHN, Albemarle-street, London.

With an Ambulance during the Franco-German War, 1870–71. By C. E. Ryan, F.R.C.S. Irel., M.R.C.P. With Portrait and Maps. 1896. pp. 364. Price 9*s.*

PENTLAND, YOUNG J., Edinburgh.

Manual of Practical Anatomy. By D. J. Cunningham. Vol. I. Upper Limb, Lower Limb, Abdomen. Second Edition. Illustrated. 1896. pp. 661.

Aseptic Surgery. By Charles B. Lockwood, F.R.C.S. 1896. Price 4*s.*

SAUNDERS, W. H., Philadelphia.

A Manual of Medical Jurisprudence and Toxicology. By H. C. Chapman, M.D. Second Edition. Illustrated. 1896. pp. 254.

SPOTTISWOODE AND CO., Gracechurch-street, London, E.C.

Minutes of the General Medical Council and of its Committees and Branch Councils for the year 1895, with Twenty-three Appendices. Vol. XXXII. 1896.

The Dentists' Register, 1896.

THACKER, SPINK AND CO., Calcutta, and W. THACKER AND CO., London.

Introductory Exercises in Wider Prose Compositions, with Notes and Translations. By Surgeon-Lieutenant-Colonel G. Ranking, M.D., and M. M. Yu'suf Ja' Farl. 1896.

THE JOHNS HOPKINS PRESS, Baltimore.

The Johns Hopkins Hospital Reports. Vol. V. 1895.

The Journal of Pathology and Bacteriology; edited by G. S. Woodhead, M.D.; Vol. III.; January, 1896 (Young J. Pentland, Edinburgh); price 12*s.* net.—Specielle Pathologie und Therapie; 22. Band, I. Theil; von Dr. H. Nothnagel; Die Erkrankungen der Schilddrüse, Myxödem und Cretinismus; von Prof. Dr. C. A. Ewald (Alfred Hölder, Wien 1896).—Les Ferments Solubles (Diastases-Enzymes); par Émile Bourquelot; (Société d'Editions Scientifiques, Paris, 1896).—Monats schrift fur Geburtshülfe und Gynäkologie; Prof. Dr. A. Martin und Prof. Dr. M. Sänger; February, 1896 (Williams and Norgate, London).—The Asclepiad; second series; fourth quarter, 1894–5; No. 44; Vol. II. (Longmans, Green and Co., London); price 2*s.* 6*d.*—Guide to Travellers on the Maintenance of Health in Unhealthy Countries; by Henry Cayley, F.R.C.S., F.R.G.S. (Horace Cox, Bream's-buildings, London, E.C.); 1896; price 1*s.*—The New Science Review; January 1896 (Gay and Bird, Chandos-street, Strand, London).

Appointments.

Successful applicants for Vacancies, Secretaries of Public Institutions, and others possessing information suitable for this column, are invited to forward it to THE LANCET *Office, directed to the Sub-Editor, not later than 9 o'clock on the Thursday morning of each week for publication in the next number.*

ALLFREY, C. H., M.D. Edin., M.R.C.P. Lond., F.R.C.S. Eng., D.P.H. Camb., has been appointed Assistant Physician to the Hastings, St. Leonards, and East Sussex Hospital.

ANGELL, MR., has been reappointed Public Analyst for the Borough of Guildford.

BAINES, E. W. P., M.B., B.S. Durh., has been appointed Registrar at the Hospital for Women, Soho-square, London.

BANKS, L. P., L.K.Q.C.P. Irel., L.F.P.S. Glasg., has been reappointed Honorary Surgeon to the Mansfield and District Hospital.

BEVAN, J. I., M.B., C.M. Edin., has been appointed Medical Officer of Health for the Oystermouth Urban Sanitary District.

BYERS, PROFESSOR, M.D. Irel., has been reappointed Examiner in Midwifery in the Royal University of Ireland.

CHARNLEY, WM., M.D. Camb., M.R.C.S., has been appointed Honorary Ophthalmic and Aural Surgeon to the Wrexham Infirmary.

CHEATLE, ARTHUR H., F.R.C.S., has been appointed Surgeon to the Royal Ear Hospital, Soho.

COLEY, F. C., M.D. Durh., L.R.C.P. Lond., M.R.C.S., has been reappointed Medical Officer for the Northern Counties Hospital for Consumption and Diseases of the Chest.

CURTIS, A., M.R.C.S., has been reappointed Medical Officer of Health by the Staines Urban Council.

DAWSON, W. J., M.B. Irel., has been appointed Dispensary Medical Officer for Newtownhamilton.

DOBIE, W. M., M.D. Edin., M.R.C.S., has been appointed Consulting Physician to the Wrexham Infirmary.

FARRAR, REGINALD, M.D. Oxon., M.R.C.S., L.R.C.P. Lond., has been appointed Surgeon to the Stamford, Rutland, and General Infirmary, vice W. Newman, resigned.

GILRUTH, J. D., M.B., C.M. Edin., has been appointed Medical Officer by the Duffus Parish Council.

GRIFFIN, A. E., M.A. Cantab., M.R.C.S. Eng., L.R.C.P. Lond., has been appointed House Surgeon to the Middlesex Hospital.

HARRIS, T., M.D. Lond., F.R.C.P., M.R.C.S., has been appointed Visiting Physician to the Manchester Royal Lunatic Asylum.

HEAVEN, J. C., L.R.C.P. Lond., M.R.C.S., D.P.H., has been reappointed Medical Officer of Health by the Keynsham District Council.

HODGSON, C. E., L.R.C.P., L.R.C.S. Irel., has been appointed Resident Clinical Assistant to the City Asylum, Birmingham, vice G. Hunt.

JONES, ROWLAND F. H., L.R.C.P. Lond., M.R.C.S., D.P.H., has been appointed Medical Officer for the Workhouse of the Bangor and Beaumaris Union, vice E. C. Price, resigned.

KYDD, D. A. F., M.B., C.M. Aberd., has been appointed Medical Officer for a Division of the Burgh of Port Glasgow.

LANCASTER, E. LE CRONIER, M.B., B.Ch. Oxon., has been appointed Honorary Physician to the Swansea and South Wales Institution for the Blind, vice G. Herbert Hopkins, resigned.

MILLS, W. ERNEST, F.R.C.S. Eng., has been appointed House Surgeon to St. Mark's Hospital for Diseases of the Rectum.

MILLIGAN, C. J., L.R.C.P. & S. Edin., has been appointed Medical Officer for Ligoniel Dispensary, vice R. H. Newett, deceased.

MOWAT, ANDREW, M.B., C.M. Aberd., has been appointed Medical Officer for Longhope, Orkney.

NEWMAN, WILLIAM, M.D., M.R.C.P. Lond., F.R.C.S. Eng., has been appointed Consulting Surgeon to the Stamford, Rutland, and General Infirmary.

NUTTING, E. S., M.B., C.M. Edin., has been reappointed Honorary Surgeon to the Mansfield and District Hospital.

PENNY, W. R., M.R.C.S., L.R.C.P., has been appointed House Surgeon to Westminster Hospital.

PHILLIPS, GEORGE, M.R.C.S. Eng., L.R.C.P. Lond., has been appointed Junior House Surgeon to the Bury Dispensary Hospital, Lancs.

RICHARDS, A. F. B., M.B., B.C. Camb., L.R.C.P. Lond., M.R.C.S., has been appointed Medical Officer for the Hospital, Swansea.

RODEN, P. A., M.B., C.M. Aberd., has been reappointed Medical Officer of Health for Droitwich.

SHEPHERD, H. B., L.R.C.P. Lond., M.R.C.S., has been appointed Medical Officer for the Castleton Sanitary District of the Chapel-en-le-Frith Union.

SMITH, A. T., M.B., C.M. Aberd., has been appointed Medical Officer for the Third Sanitary District of the Bromley Union.

SMITH, LORRAIN J., M.D. Edin., has been reappointed Examiner in Pathology in the Royal University of Ireland.

SPARKE, G. W., M.R.C.S., L.M., has been reappointed Honorary Consulting Surgeon to the Mansfield and District Hospital.

STEELL, G., M.D. Edin., C.M., F.R.C.P. Lond., has been appointed Visiting Physician to the Manchester Royal Lunatic Asylum.

STEVENSON, A. K., M.D., C.M. Irel., has been appointed Medical Officer for the Doagh Dispensary District.

TAYLOR, JAS., L.R.C.P. Lond., F.R.C.S., L.F.P.S. Glasg., has been appointed Consulting Surgeon to the Wrexham Infirmary.

VAWDREY, GEO., L.R.C.P., L.M. Edin., M.R.C.S., has been appointed Medical Officer by the Farnborough District Council.

WARD, T. H., M.B., C.M. Edin., has been appointed Medical Officer for the Second Sanitary District of the Totnes Union.

WAYTE, J., M.A., M.B., B.Ch. Oxon., M.R.C.S. Eng., L.R.C.P. Lond., has been appointed Surgeon to Croydon General Hospital.

WHITLA, PROFESSOR, M.D. Irel., has been reappointed Examiner in Materia Medica in the Royal University of Ireland.

WILLIAMS, EDWARD CECIL, B.A., M.B., B.C. Cantab., has been appointed Physician-in-charge of Out-patients to the Hospital for Sick Children and Women, Bristol.

WILLIAMS, R., M.B., C.M. Edin., has been reappointed Medical Officer of Health for the Leominster Urban Sanitary District.

Vacancies.

For further information regarding each vacancy reference should be made to the advertisement (see Index).

ANDERSON'S COLLEGE MEDICAL SCHOOL, Glasgow.—Chair of Midwifery.

BIRKENHEAD UNION.—Assistant Medical Officer for the Workhouse and Schools. Salary £60 for the Workhouse and £20 for the Schools, with rations, attendance, washing, and residence in the Workhouse or outside until accommodation can be provided. Applications to Clerk to the Guardians, Clerk's Offices, 45, Hamilton-square, Birkenhead.

BIRMINGHAM PROVIDENT DISPENSARY (SANDS-COX TRUST), Hockley Branch.—Medical Officer. Minimum salary £250 per annum, with residence and gas.—Applications to the Secretary, 20, Weston-road, Handsworth, Birmingham.

BOLTON INFIRMARY AND DISPENSARY.—Senior and Junior House Surgeons for one year. Salary for the Senior £120, and for the Junior £80 per annum, with apartments, board, and attendance.

CITY OF LONDON HOSPITAL FOR DISEASES OF THE CHEST, Victoria-park, E.—House Physician for six months. Salary at the rate of £30 per annum, with board and residence.

GENERAL HOSPITAL, Nottingham.—Assistant House Surgeon for six months. Board, lodging, and washing in the hospital provided. Also Assistant House Physician for six months. Board, lodging, and washing in the hospital provided.

LONDON HOSPITAL, Whitechapel, E.—Two Dental Surgeons.

MANCHESTER ROYAL INFIRMARY (BARNES CONVALESCENT HOSPITAL), Cheadle.—Clinical Assistant for six months. Board and lodging provided.

MANCHESTER SOUTHERN AND MATERNITY HOSPITAL.—Resident House Surgeon. Honorarium at the rate of £50 per annum, and board.

METROPOLITAN HOSPITAL, Kingsland-road, N.E.—House Physician, House Surgeon, Assistant House Physician, and Assistant House Surgeon, for six months. Salary of House Physician and House Surgeon at the rate of £40 a year; and the salary of Assistant House Physician and Assistant House Surgeon at the rate of £20 a year.

NORTHUMBERLAND COUNTY LUNATIC ASYLUM, Morpeth.—Assistant Medical Officer, unmarried. Salary £120 per annum, increasing £10 yearly to £150, with furnished apartments, board, and lodging.

RIPON DISPENSARY AND COTTAGE HOSPITAL.—Resident House Surgeon and Dispenser, unmarried. Salary £70 per annum, with board and lodging.

ROYAL HOSPITAL FOR CHILDREN AND WOMEN, Waterloo-bridge-road, S.E.—Resident Medical Officer for one year. Salary £70 per annum, with board.

SHEFFIELD ROYAL HOSPITAL.—House Surgeon for two years, unmarried. Salary £100 guineas per annum, with board (exclusive of wine and beer) and lodging.

THE GUARDIANS OF THE POOR OF THE WANDSWORTH AND CLAPHAM UNION.—Assistant Medical Officer for the Infirmary of the Union, unmarried. Salary £120 per annum, with apartments, board, and washing. Applications to the Clerk, Union Offices, New Wandsworth.

THE HOSPITAL FOR WOMEN, Soho-square, London.—Assistant House Physician (non-resident) for three months.

UNIVERSITY COLLEGE, London.—Professor of Pathology.

VICTORIA HOSPITAL, Folkestone.—House Surgeon. Salary £80 a year, rising £10 annually, with board, residence, and washing.

VICTORIA UNIVERSITY, THE YORKSHIRE COLLEGE, Leeds.—Demonstrator of Physiology. Salary £150.

WARRINGTON INFIRMARY AND DISPENSARY.—Junior Resident House-Surgeon, unmarried. Salary £100 per annum, with furnished residence and board.

Births, Marriages, and Deaths.

BIRTHS.

ARNOLD.—On Feb. 14th, at Oxford-road, Manchester, the wife of Francis Sorell Arnold, M.B. Oxon., of a daughter.

CHAPMAN.—On Feb. 12th, at St. John's street, Hereford, the wife of Paul M. Chapman, M.D. Lond., F.R.C.P. of a son.

CLARKE.—On Feb. 16th, at Gledstanes-road, West Kensington, W., the wife of William Frederick Clarke, M.D., B.S. Lond., of a son.

COOPER.—On Feb. 12th, at Courtfield-road, the wife of G. White Cooper, M.B., of a daughter.

HARRIS.—On Feb. 14th, at Holy Innocents'-road, Hornsey, the wife of E. Bernard Harris, M.R.C.S. Eng., L.R.C.P. Lond., L.S.A., of a daughter.

PECK.—On Feb. 18th, at 64, Gower-street, the wife of Awdry Peck, M.A. Oxon., M.R.C.S., L.R.C.P., of a daughter.

RAWLINSON.—On Feb. 16th, at Stuart House, Bognor, the wife of F. Juland Rawlinson, F.R.C.S., of a son.

MARRIAGES.

CROUCH—SMITH.—On Feb. 12th, at St. Thomas's, Portman-square, Charles Percival Crouch, F.R.C.S. Eng., M.B. Lond., of Weston-super-Mare, to Annie Parbury, second daughter of Thomas Smith, F.R.C.S. Eng., of Stratford-place, W.

CUFFEY—O'CONNOR.—On Feb. 13th, at the Roman Catholic Church, Cairy, county Sligo, Edward Cuffey, Surgeon R.N., son of the late John Cuffey, Johnsville, Roscrea, to Charlotte, daughter of James O'Connor, Ballyglass House, county Sligo.

CURRIE—GUBBINS.—On Feb. 8th, at Harrismith, Orange Free State, Oswald James Currie, M.B. Lond., M.R.C.S.E., of Maritzburg, Natal, eldest son of Alexander Currie, of Blackheath, to Sara, second daughter of the late George Gough Gubbins, of Summerville, county Limerick.

KENNINGTON—ABREY.—On Feb. 12th, at the parish church, Tonbridge, Edgar Kennington, M.R.C.S., second son of the late James Kennington, The Hall, Walsham, to Enid, second daughter of John Abrey, Barden Park, Tonbridge.

PATCH—PERSHOUSE.—On Feb. 12th, at St. Mary Magdalene's, Upton, Torquay, Henry Herbert Lloyd Patch, M.R.C.S. Eng., L.R.C.P. Lond., L.S.A., of Chudleigh, to Elizabeth (Lily), eldest daughter of Francis Pershouse, of Chelston Tower, Torquay.

STEGGALL—PURCELL.—On Jan. 17th, at Jamaica, Septimus L. J. Steggall, L.R.C.P. Lond., of Costa Rica, seventh son of J. W. B. Steggall, M.R.C.S., of Queen-square, Bloomsbury, to Edith Aileen Purcell, youngest daughter of the late Captain John Purcell, P. L. Highlanders.

DEATHS.

COLLUM.—On Feb. 12th, Archie Tillyer Collum, M.B. Lond., F.R.C.S., Surgeon at Charing-cross Hospital, of Grosvenor-street, W., fifth son of Robert Collum, M.D., M.R.C.P., Surgeon-Major, late H.E.I.C.S., of Surbiton, Surrey, and Enniskillen, county Fermanagh, aged 28.

EKIN.—On Feb. 14th, Surgeon-General James Ekin, C.B., M.B. Lond. Univ., aged 67.

HOOPER.—On Feb. 14th, at his residence, Allandale, Westwood-road, Southampton, Charles Hooper, M.R.C.S., aged 75.

HOWARD.—On Jan. 1st, from injuries received in the Natal railway accident of Dec. 31st, 1895, Arthur Bertram Maclagan Howard, L.S.A., L.M.S. Lond., L.R.C.P., L.R.C.S., L.M. Edin., youngest son of the late Edward Howard, Deputy Inspector-General of Hospitals, A.M.D., H.M. 20th Regiment.

RAINY.—On Feb. 14th, at 25, George-square, Edinburgh, Jane Christina, widow of the late George Rainy, M.D., Glasgow.

SAUNDERS.—On Feb. 16th, at Hartham-road, Camden-road, Thomas Jones Saunders, M.R.C.S., L.R.C.P., in his 83rd year.

TUXFORD.—On Feb. 13th, at his residence, The Square, Boston, James Edward Tuxford, M.R.C.S., J.P., in the 93rd year of his age.

WILSON.—On Feb. 16th, at Warrior-square, St. Leonard's-on-Sea, Robert James Wilson, F.R.C.P. Edin., J.P., aged 68.

N.B.—A fee of 5s. is charged for the insertion of Notices of Births, Marriages, and Deaths.

Medical Diary for the ensuing Week.

OPERATIONS.

METROPOLITAN HOSPITALS.

MONDAY (24th).—London (2 P.M.), St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), St. George's (1 P.M.), Middlesex (1.30 P.M.), St. Mark's (2 P.M.), Chelsea (2 P.M.). Samaritan (Gynæcological, by Physicians, 2 P.M.), Soho-square (2 P.M.), Royal Orthopædic (2 P.M.), City Orthopædic (4 P.M.), Gt. Northern Central (2.30 P.M.).

TUESDAY (25th).—London (2 P.M.), St. Bartholomew's (1.30 P.M.), Guy's (1.30 P.M.), St. Thomas's (3.30 P.M.), Middlesex (1.30 P.M.), Westminster (2 P.M.), West London (2.30 P.M.), University College (2 P.M.), St. George's (1 P.M.), St. Mary's (1.30 P.M.), St. Mark's (2.30 P.M.), Cancer (2 P.M.).

WEDNESDAY (26th).—St. Bartholomew's (1.30 P.M.), University College (2 P.M.), Royal Free (2 P.M.), Middlesex (1.30 P.M.), Charing-cross (3 P.M.), St. Thomas's (2 P.M.), London (2 P.M.), King's College (2 P.M.), National Orthopædic (10 A.M.), St. Peter's (2 P.M.), Samaritan (2.30 P.M.), Gt. Ormond-street (9.30 A.M.), Gt. Northern Central (2.30 P.M.).

THURSDAY (27th).—St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), University College (2 P.M.), Charing-cross (3 P.M.), St. George's (1 P.M.), London (2 P.M.), King's College (2 P.M.), Middlesex (1.30 P.M.), Soho-square (2 P.M.), North-West London (2 P.M.), Chelsea (2 P.M.), Great Northern Central (Gynæcological, 2.30 P.M.).

FRIDAY (28th).—London (2 P.M.), St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), Guy's (1.30 P.M.), Middlesex (1.30 P.M.), Charing-cross (3 P.M.), St. George's (1 P.M.), King's College (2 P.M.), Cancer (2 P.M.), Chelsea (2 P.M.) Gt. Northern Central (2.30 P.M.).

SATURDAY (29th).—Royal Free (9 A.M. and 2 P.M.), Middlesex (1.30 P.M.), St. Thomas's (2 P.M.), London (2 P.M.), University College (9.15 A.M.), Charing-cross (3 P.M.), St. George's (1 P.M.), Cancer (2 P.M.).

At the Royal Eye Hospital (2 P.M.), the Royal London Ophthalmic (10 A.M.), the Royal Westminster Ophthalmic (1.30 P.M.), and the Central London Ophthalmic Hospitals operations are performed daily.

SOCIETIES.

MONDAY (24th).—SOCIETY OF ARTS.—8 P.M. Professor J. M. Thomson: The Chemistry of certain Metals and their Compounds used in Building, and the Changes produced in them by Air, Moisture, and Noxious Gases, &c. (Cantor Lecture.)

MEDICAL SOCIETY OF LONDON.—8.30 P.M. Dr. C. H. Ralfe: On the Causation and Treatment of Obscure Renal Pain.—Mr. Hurry Fenwick: On Exploration of the Kidney in cases of Incontrolable Renal Pain.—Mr. Sydney Rowland: Demonstration of the New Shadow Photography by Roentgen's "X" Rays.

TUESDAY (25th).—SOCIETY OF ARTS.—8 P.M. Mr. W. Burton: The Palette of the Potter.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY (20, Hanover-sq., W.).—Adjourned Discussion on the Parasite of Malaria, to be introduced by a Paper on the Parasite of Malaria, with special reference to the malarial fevers of the South of Spain, by Dr. Robert J. Marshall and Dr. George Thin.

WEDNESDAY (26th).—SOCIETY OF ARTS.—8 P.M. Mr. A. J. Hipkins: The Standard of Musical Pitch.

THURSDAY (27th).—SOCIETY OF ARTS (Imperial Institute, South Kensington).—4.30 P.M. Mr. C. Tripp: The Tobacco Industry of India and the Far East.

FRIDAY (28th).—CLINICAL SOCIETY OF LONDON.—8.30 P.M. Clinical Cases.

LECTURES, ADDRESSES, DEMONSTRATIONS, &c.

MONDAY (24th).—LONDON POST-GRADUATE COURSE.—Roy. Lond. Ophthalmic Hospital, Moorfields, 1 P.M., Mr. E. T. Collins: Injuries of the Eye.—London Throat Hospital, Gt. Portland-st., W., 8 P.M., Mr. G. Stoker: Chronic Glandular Diseases of the Nose and Pharynx.

TUESDAY (25th).—LONDON POST-GRADUATE COURSE.—Bethlem Hospital, 2 P.M., Dr. Craig: Delusional Insanity.

ROYAL INSTITUTION.—3 P.M. Prof. Charles Stewart: The External Covering of Plants and Animals: its Structure and Functions.

WEDNESDAY (26th).—NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC (Bloomsbury).—3 P.M. Lecture by Dr. Gowers.

HOSPITAL FOR CONSUMPTION, &c. (Brompton).—4 P.M. Dr. Biss: Chronic Pneumonia and Bronchiectasis.

ST. JOHN'S HOSPITAL FOR DISEASES OF THE SKIN (Leicester-square, W.C.).—5 P.M. Dr. Morgan Dockrell: Diseases of Nails.

LONDON POST-GRADUATE COURSE.—Roy. Lond. Ophthalmic Hospital, Moorfields, 8 P.M., Mr. E. T. Collins: Vision Testing.—Hospital for Skin Diseases, Blackfriars, 4.30 P.M., Dr. Payne: Lichenplanus and Allied Diseases.

THURSDAY (27th).—ROYAL INSTITUTION.—3 P.M. Prof. H. Marshall Ward: On some Aspects of Modern Botany.

LONDON POST-GRADUATE COURSE.—Central London Sick Asylum, Cleveland-st., W., 5.30 P.M., Sir W. MacCormac: Clinical Lecture.—Brit. Inst. of Preventive Medicine, Gt. Russell-st., W.C., 3.30 P.M. Dr. Allan Macfadyen and Mr. A. G. Foulerton: Quantitative Estimation of Albumins Present.

FRIDAY (28th).—LONDON POST-GRADUATE COURSE.—King's College, 3 to 5 P.M. Prof. Crookshank: Tuberculosis and Leprosy.

ROYAL INSTITUTION.—9 P.M. Mr. J. Murray: Marine Organisms and their Conditions of Environment.

SATURDAY (29th).—ROYAL INSTITUTION.—3 P.M. Lord Rayleigh: Light.

ST. JOHN'S HOSPITAL FOR DISEASES OF THE SKIN (Leicester-square, W.C.).—5 P.M. Dr. Morgan Dockrell: Psorospermosis Cutis.

METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET Office, Feb. 20th, 1896.

Date.	Barometer reduced to Sea Level and 32° F	Direction of Wind	Dry Bulb	Wet Bulb	Solar Radia in Vacuo	Maximum Temp Shade	Min. Temp	Rainfall	Remarks at 8.30 A.M.
Feb. 14	30·48	S.	41	37	50	46	40	...	Cloudy
,, 15	30·42	N.	44	42	59	50	41	...	Overcast
,, 16	30·54	N.E.	41	38	48	43	39	...	Overcast
,, 17	30·55	N.E.	38	36	62	43	36	...	Overcast
,, 18	30·29	S.E.	35	34	43	41	34	...	Foggy
,, 19	29·88	S.E.	41	41	65	54	35	...	Hazy
,, 20	29·69	S.	49	48	60	52	41	0·01	Overcast

Notes, Short Comments, and Answers to Correspondents.

EDITORIAL NOTICE.

IT is most important that communications relating to the Editorial business of THE LANCET should be addressed *exclusively* "TO THE EDITORS," and not in any case to any gentleman who may be supposed to be connected with the Editorial staff. It is urgently necessary that attention be given to this notice.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.

Lectures, original articles, and reports should be written on one side of the paper only.

Letters, whether intended for insertion or for private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.

We cannot prescribe or recommend practitioners.

Local papers containing reports or news paragraphs should be marked and addressed "To the Sub-Editor."

Letters relating to the publication, sale, and advertising departments of THE LANCET *should be addressed "To the Manager."*

We cannot undertake to return MSS. not used.

MANAGER'S NOTICES.

THE INDEX TO THE LANCET.

THE Index for the second half-yearly volume for 1895 was given in the issue of Dec. 28th. The practice of supplying loose copies has been discontinued, the Index having been placed in the centre of the journal, whence it can easily be detached, and placed either at the beginning or at the end of the volume.

VOLUMES AND CASES.

VOLUMES for the second half of the year 1895 are now ready. Bound in cloth, gilt lettered, price 1*s*.

Cases for binding the half-year's numbers are also ready. Cloth, gilt lettered, price 2*s*.; by post, 2*s*. 3*d*.

To be obtained on application to the Manager, accompanied by remittance.

"EMOTION AND SOMATIC CONDITION."

To the Editors of THE LANCET.

SIRS,—My attention has been drawn to an article in THE LANCET of Jan. 11th, 1896, in which this sentence occurs, viz.:—"Certain of the emotions, fear and expectation, for instance, have an influence on the body." Now, whether the limitation here involved to "certain emotions" be intentional, or otherwise, on the part of the writer of your leading article I do not know, but I do know that the limitation is unwarranted by the facts. All emotions influence bodily states in precise proportion to their + or − degree, and, *vice versâ*, all bodily states modify emotions. This has been scientifically demonstrated by M. le Dr. Ch. Féré, Medicin de Bicêtre, in his epochal work entitled "La Pathologie des Emotions."

I am, Sirs, yours faithfully,

Glasgow, Feb. 14th, 1896. ROBT. PARK, M.D. Glasg., &c.

A NEW PREPARATION OF ASBESTOS FOR A MIDDLE SOLE TO BOOTS.

MR. F. PASSMORE, 11, Almeida-street, Islington, N., has directed our attention to a new preparation of asbestos for use as a middle sole to boots and shoes. The middle sole of certain classes of boots are at present composed of all kinds of rubbish which readily absorbs damp, and when thoroughly wet it is almost impossible to dry it again. The invention consists of a preparation of asbestos wool compressed into thin sheets by hydraulic pressure, and waterproofed on one side. As asbestos is a good non-conductor of heat, its use in this direction should tend to keep the feet warm and prevent the various ills arising from cold and damp feet.

A. B. C.—The action of Y, as described by X, is as unintelligible as it is unusual. X. might well, judging from his version of the facts, refuse to meet Y. again. He will act with magnanimity in giving him an opportunity of explaining or apologising.

THE PULSE-GLASS.

To the Editors of THE LANCET.

SIRS,—I should be glad if some of the readers of THE LANCET would kindly tell me whether an instrument was ever used in medicine called a pulse-glass? An old and respected patient of mine showed me a small glass instrument which belonged to his father seventy years ago, and which my patient thought was in some way used for the pulse. It is a small glass tube about five inches long, with two bulbs at its extremities, and about a third filled with a coloured fluid. When held somewhat obliquely in the hand the fluid takes up rhythmical movements or pulsations, not in harmony with the pulse but apparently associated with the heat of the hand; the air above the fluid appears to expand and to determine the fairly regular pulsations. There must be many of your readers who can enlighten me as regards the former use of the pulse-glass, and I hope they will kindly take the trouble to do so in an early number of THE LANCET. My friend purchased a second-hand copy of "The Botanic Garden," by Erasmus Darwin, fourth edition, 1799, and he found a small glass described therein as a pulse-glass and used as a radiometer; it is under Note 8, Canto I. The particular copy of this book bears on its cover, "A gift from Mrs. Erasmus Darwin to Robert N. Friend."

I am, Sirs, yours faithfully,
A MEDICAL MAN.

THE NEW PHOTOGRAPHY *VERSUS* THE ELECTRIC LIGHT.

To the Editors of THE LANCET.

SIRS,—All the reports on the application of the new photography to medicine and surgery reveal great difficulties to be encountered, great uncertainty in the action of the tubes, and delicacy of manipulation required to produce definite results. All these difficulties will, in time, be overcome, but at present the process takes up too much time to be of real practical value to the medical profession. I wish, therefore, to draw attention to the use of the electric light.

Ten years ago, while examining a patient's throat with the incandescent lamp, I found that the cheek was rendered perfectly translucent. I was soon able to put this knowledge to a practical test: a girl with a broken needle in her finger was taken into the dark room, and the light made the hand so translucent that the position of the needle was at once localised. I have used it constantly during the last ten years with very satisfactory results, both in the detection of foreign bodies and malformations in the hand, foot, nose, ear, and wherever, in fact, it is possible to render a part sufficiently translucent. I have frequently demonstrated this to friends, and also at the annual meeting of the Yorkshire Branch of the British Medical Association, held at the Halifax Infirmary four years ago. I do not think the use of the light in this manner is sufficiently well known. For ordinary work I use the small throat lamp, but for deep penetration a larger, placed in a small dark chamber, so that the whole of the light shall be concentrated on the part to be illuminated. I am, Sirs, yours faithfully,

JOHN OAKLEY, M.R.C.S. Eng.

Holly House, Halifax, Feb. 18th, 1896.

O. P.—The fee of 1s. is the correct one under Section 4 (3) of the Infectious Disease (Notification) Act, 1889, provided the case notified did not occur in private practice, but was under the care of the notifier in his capacity "as medical officer of any public body or institution." The assumption is that such an officer is commonly paid by the public body for performing the various duties attached to his post, and hence the lesseped fee. In our opinion it is too small under any circumstances, but in some institutions the number of notifications is large. Where this latter is the case no difficulty arises as to the transmission once a quarter or half-year of a receipt for the accumulated fees. Our correspondent's case of a solitary shilling fee is different; but we believe that any body which has to submit its accounts for audit is bound to produce a receipt, and could refuse further payments unless such receipt was delivered at their office by hand or by post.

Mr. J. Montfort Schley.—Copies of the Contagious Diseases Acts, 1864, 1866, and 1869 could no doubt be obtained from Messrs. Spottiswoode and Co., East Harding-street, E.C. They are all short Acts and would not cost much.

"TREATMENT OF CEPHALALGIA."

A. B. writes:—"In reply to E. de W. H., requesting suggestions for treating an obstinate case of cephalalgia, if the numerous remedies recommended in Section 1429 of the 'Medical Digest and Appendix' have failed I would advise a trial of a percuteur, which, if there be no coarse lesion present, may effect a cure."

Juvenis.—Speaking legally, H. might be expected either to do the work or provide a substitute. The rule when an assistant falls ill is for the principal to act with consideration and not stand too rigidly on legal rights. In answer to the second question, we think that in the absence of a notice in writing H. is entitled to resume his work. There is nothing fixed as to holidays; five days in two years and eight months is quite insufficient.

Mr. James Williamson.—We cannot recommend any remedy. First, we never prescribe for patients; secondly, no one can prescribe properly without seeing the case. Our correspondent's trouble is a common one proceeding from various causes. A medical man would be able to tell him whether any remedy would be of probable avail and what.

Mr. M. J. Rees.—One guinea.

BRAMSCHWEIG'S CIRURGIA.

To the Editors of THE LANCET.

SIRS,—I should be very much obliged to any of your readers who could help me in a bibliographical difficulty. I am desirous of purchasing a copy of "Bramschweig's Cirurgia," 1513 (Strassburg), and two have been submitted to me for approval. Each of them has the same apparent deficiency, and I am desirous of ascertaining whether the copies are really defective—i.e., incomplete as regards four pages—or whether it is one of those printer's errors so common in early editions. The book is printed in sheets of six leaves, and from the second, signed B, to the end, there is no variation in this respect. B 1, instead of being numbered vii. (pagination is on one side only) and being preceded by six A's, is numbered ix.; but in the copies submitted to me there are only four leaves preceding numbered i. to iiii. According to the pagination there are four leaves missing, but according to the signatures there ought only to be six in all—i.e., two missing. Although I cannot read the Old German (the book being chiefly valuable and interesting for its cuts), it would seem as if the text went on properly from the verso of iv. to the recto of ix., the former having the heading of a chapter and a woodcut, the latter commencing a chapter. I may add that the table of contents gives page viii. as that on which to find the chapter "Von der Anathomi," but in the book it commences on page xi. The question, in short, is how many leaves precede page numbered ix., signature B 1, but the details which precede may be useful to book collectors. I may add that this very curious and rare medical picture-book is not to be found in either the Bibliothèque Nationale or the Library of the Faculty of Medicine of this city.—I am, Sirs, yours truly,

Paris, Feb. 17th, 1896. HISTORICUS.

Mr. W. B. Fotheringham.—Our correspondent's observations are perfectly sound, and the suggestion has already been made, but, so far as we know at present, not yet realised. We believe there would be some difficulty in getting aluminium sheeting proof against the entrance of air with such high vacua.

Mr. Henry G. Terry, Mr. Fredk. Lace.—The chairman seems to have exceeded his duty in specifying the other appointments of the applicants for the post of honorary surgeon to the Royal Mineral Water Hospital.

M. D.—We fear the matter is not so simple.

During the week marked copies of the following newspapers have been received:—*Eastern Morning News, Kenilworth Advertiser, Coventry Standard, Midland Daily Telegraph, Medical Record (New York), Christian Age, Bromsgrove Messenger, Ipswich Journal, Bradford Daily Telegraph, Mexican Herald, Dundee Advertiser, Sanitary Record, City Press, Weekly Free Press and Aberdeen Herald, Mining Journal, Western Morning News, Birmingham Daily Post, Sussex Daily News, South Western Star, West Middlesex Standard, Local Government Chronicle, Reading Mercury, Yorkshire Post, Liverpool Daily Post, Times of India, Leeds Mercury, Pioneer Mail, Architect, Bristol Mercury, Madras Times, Birmingham Daily Gazette, Oban Times, Brighton Herald, Wolverhampton Chronicle, Builder, Scotsman, Bradford Observer, Hertfordshire Mercury, North Star, Walsall Advertiser, Essex County Chronicle, East Anglian Daily Times, South Wales Daily News, Pullin's Kent Argus, Jackson's Oxford Journal, Newcastle Journal, Sheffield Telegraph, Gloucester Journal, Local Government Journal, Gloucestershire Echo, Gloucestershire Chronicle, Tunbridge Wells Advertiser, Northern Daily Mail, Northern Guardian, Surrey Advertiser, Carpenter and Builder, Allahabad Morning Post, National Observer, Oldham Evening Chronicle, Keble's Margate and Ramsgate Gazette, Western Mail, &c., &c.*

Communications, Letters, &c., have been received from—

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